

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number: 98584

TO: Mark Navarro Location: 8A15

Art Unit: 1645

Friday, July 11, 2003

Case Serial Number: 10/091442

From: Barb O'Bryen

Location: Biotech-Chem Library

CM1-6A05

Phone: 308-4291

barbara.obryen@uspto.gov

Search Notes

O'Bryen, Barbara

Navarro, Albert From: Thursday, July 10, 2003 12:47 PM

Sent: O'Bryen, Barbara To:

10/091,442 Subject:

Mark Navarro 1645 306-3225 8A15

Hello Barb,

Could I trouble you for a search and an interference search of:

SEQ ID NO: 1-9 and 34

Thanks

Mark



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Listing first 45 summaries
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Q9yq03 myxoma viru
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Q9byf8 homo sapien
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Q09657 caenorhabdi
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Q096586 onchocerca
Q14527 homo sapien
Q9udt6 mus musculu
Q55156 rattus norv
Q9ep81 mus musculu
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Q9D695
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Q9SIB7	Q8XN50	Q9ZKU2	025565	Q95PD8	Q9RQW0	Q9VXT8	008882	097004	Q55617	Q9GRG1	032544	Q9FQY7	0617160	Q9PR46	Q9WTC2	Q97FL1	Q9ZMY7	024911	Q9DCD5	076878	Q9BX29	Q92PT5	Q9VFC2	Q9U1I4	Q9BYF7	08WW89	Q945Y0	Q946D0
Q9sib7 arabidopsis		Q9zku2 helicobacte	025565 helicobacte	Q95pd8 calliphora	Q9rqw0 neisseria m	Q9vxt8 drosophila			Q55617 synechocyst	Q9grg1 tetrahymena		Q9fqy7 capsicum an	Q91y90 arabidopsis			Q97fll clostridium	Q9zmy7 helicobacte	024911 helicobacte	s	iros	_	Q92pt5 rhizobium m	ros	irosc	OMO	Q8ww89 homo sapien	Q945y0 theobroma c	theobroma

ALIGNMENTS

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SEQUENCE FROM N.A.	[2]	Nathary 100.685.650(7001) of a full-length mouse CDNA COLLECTION ;	,	Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,	Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,	Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch KF.,	Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,	Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,	Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,	Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,	Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,	Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,	Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,	Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,	Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,	Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,		Kiyosawa H., Kondo S., Yamanaka	., Hara A., Fukunishi Y., F	Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,	MEDLINE=21085660; PubMed=11217851;	STRAIN=C57BL/6J; TISSUE-SKIN;	SEQUENCE FROM N.A.		NCBI_TaxID=10090;	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Mus musculus (Mouse).	SERPINB7 OR 4631416M05RIK.	4631416M05Rik protein (Megsin).	21,	(TrEMBLrel. 17,	01-JUN-2001 (TrEMBLrel. 17, Created)	Q9D695;

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RESULT
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Q920J5;
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Pfam; PF00079; Serpin; 1.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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SMART; SM00093; SERPIN; 1.

PROSITE; PS00284; SERPIN; UNKNOWN 1.

PROSITE: PS00284; A3050 MW; C9240272BCFB9CF4 CRC64;
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Kidney Int. 60:641-652(2001).
EMBL; AK014524; BAB29410.1; -.
                              M-T6 protein.
                                                                        Q9YQ03;
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Yagi M., Nagano N., Inagi R., Kurokawa
"Cloning of rodent megsin revealed its
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MGD; MGI:2151053; Serpinb7.
InterPro; IPR000215; Serpin.
  Viruses;
           Myxoma virus
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Nangaku M., Miyata T., Suzuki D., Umezono T., Hashimo
Yagi M., Nagano N., Inagi R., Kurokawa K.;
"Cloning of rodent megsin revealed its up-regulation
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Sciurognathi; Muridae;
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stage;
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 Poxviridae; Chordopoxvirinae;
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InterPro; IPRO01798; Kelch.
Pfam; pr00651; BTB; 1.
Pfam; pr001344; Kelch; 5.
SMART; SM00225; BTB; 1.
PROSITE; pS50097; BTB; 1.
PROSITE; PS00268; CECROPIN; UNKNOWN_1.
PROSITE; PS00268; CECROPIN; UNKNOWN_1.
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01-MAY-2000
01-JUN-2001
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Pfam; PF01344; Kelch; 5.
SMARF; SM00225; BTB; 1.
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PROSITE; PS00268; CECROPIN; DNKNOWN_1.
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                               51.5%;
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es, no RNA
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T6 gene of Myxoma
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                                  Score 51.5;
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Q9BYF8;
Q1-JUN-2001
Q1-JUN-2001
Q1-JUN-2002
                                                                                                                                                                     Gloeckner G., Eichinger L., Szafranski K., Pachebat J., Dear P., Lehmann R., Baumgart C., Parra G., April J.F., Guigo R., Kumpf K. Tunggal B., Cox E., Quail M.A., Platzer M., Rosenthal A., Noegel Sequence and Analysis of Chromosome 2 of Dictyostelium.", Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases. EMBL, AC115594; AAL92302.1; .
Hypothetical protein.
SEQUENCE 2020 AA: 232615 MW; 01E221CE63114DD3 CRC64;
                                                                                                                                                                                                                                                                                                                                                       01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 23.6 kDa protein.
Dictyostellum discoideum (Slime mold).
Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
MCBI_TaxID-44689;
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SCCA1.
Homo sapiens (Human).
Homo sapiens (Human).
Theria; Primates;
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Mammalia; Eutheria;
NCBI_TaxID=9606;
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Suminami Y., Kishi F.,
"Novel Forms of SCC An"
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(TrEMBLrel.)
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Antigen Transcripts
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                                                                                                                    56.2%;
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                                                                                                    Score 50; DB:
Pred. No. 42;
3; Mismatches
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Mismatches
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ipts Produced
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Q09657
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EMBL; Z46934; CAA87047.1; -.
Wormbep; ZK1320.9; CE01707.
InterPro; IPR003702; AcetylCoA_hydro.
InterPro; IPR001220; Lectin_legB.
Pfam; PF02550; AcetylCoA_hydro; 1.
PROSITE; PS00307; LECTIN_LEGUME_BETA; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00079; serpin; 1.

SMART; SM00093; SERPIN; 1.

PROSITE; PS00284; SERPIN; UNKNOWN_1.

PROSITE; PS00284; SERPIN; UNKNOWN_1.

PROJUENCE 380 AA; 42729 MW; 762B7C44ElF611F2 CRC64;
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01-JAN-1999 (TrEMBLrel. 09, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
Hypothetical 51.4 kDa protein ZK1320.9 in chromosome
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Eukaryota; Metazoa; Arthropoda; Chelicerata; Ara
Parasitiformes; Ixodida; Ixodidae; Rhipicephalus
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                                                                                                                                                                                                                                                                                                                                                          Submitted (DEC-1994) to
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
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472 AA; 51369
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                                                                                                                                                   Score 48;
Pred. No.
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Pred. No.
                                                                                                                                                                                                      08C3351E11B7C348 CRC64;
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Matches 8
Query Match
Best Local Similarity
                                                                                                                                                                  Martindale D.W., Koop B.F.;
Submitted (JAN-1998) to the EMBL/GenE
EMBL; AF041059, AAB96784.1; -.
EMBL; AF041055, AAB96784.1; JOINED.
EMBL; AF041056, AAB96784.1; JOINED.
EMBL; AF041056, AAB96784.1; JOINED.
EMBL; AF041058; AAB96784.1; JOINED.
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE-96411691; PubMed-8812460;

Osborne L.R., Martindale D.W., Scherer S.W., Shi X.-M., Huizeny

Heng H.H.Q., Costa T., Pober B., Lew L., Brinkman J., Rommens J

Koop B.F., Tsui L.-C.;

"Identification of genes from a 500-kb region at 7q11.23 that (
"The strength of the stre
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043611;
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01-JUN-1998 (Tr
01-JUN-2002 (Tr
Probable CLIP F
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08XM42;
01-MAR-2002
01-MAR-2002
01-MAR-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shimizu T., Ohtani K., Hirakawa H.,
Shiba T., Ogasawara N., Hattori M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria; Firmicutes; Bacillus/Clostridium Clostridiales; Clostridiaceae; Clostridium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                              PROSITE; PS00845; CAP_GLY_1; UNKNOWN_2
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                                                                                                                               Pro; IPR000938; CAP-Gly.
PF01302; CAP GIAY
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(TrEMBLrel. 21, Last annotation update)
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Primates;
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47.0%;
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ori M., Kuhara S.,
Clostridium perfri
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Catarrhini;
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229703EAC24770D2
                                                        547CA46012255C25 CRC64;
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i; Hominidae;
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12;
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                 Length 419
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01-OCT-2001
01-JUN-2002
                                                                                "Prediction of the coding sequence of the Aug-1997) to the ENEMBL; ABOO6629; BAA22960.2; InterPro; IPR000938; CAP-GIY. Pfam; PF01302; CAP_GLY; 2.
                                                                                                                                                                            Homo sapiens (Human).
Homo sapiens (Human).
**rvota; Metazoa; Chordata;
**horia; Primates;
                                                        SEQUENCE
                                                                        Pfam; PF01302; CAP_GLY; 2.
PROSITE; PS00845; CAP_GLY_1; UNKNOWN_2.
                                                                                                                                       Ohara O., Nagase T.,
                                                                                                                                                 TISSUE-BRAIN;
                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         "Characterization of
Onchocerca gibsoni."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Nematoda; Chromadorea; Spirurida; Onchocercidae; Onchocerca.
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                                                                                                                                                                          NCBI_TaxID=9606;
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                   Similarity
8; Conserv
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9; Conserv
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ERVDFTNHLEDTRRNI 17
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50.0%;
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                                                                                                                                       Ishikawa K.,
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18,
21,
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Last annotation updat
                   4;
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                           Score 47;
Pred. No.
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Pred. No.
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Catarrhini; Hominidae;
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                    Mismatches
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                                                        12278FC26788B620 CRC64;
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                    Indels
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O9UDT6;
O1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-JUN-2000 (TrEMBLrel. 21, Last annotation update)
O1-JUN-2001 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                                                                                                          Q9Z0H8;
01-MAY-1999
01-MAY-1999
01-JUN-2002
CLIP-115.
                MEDLINE-99017971; PubMed-9799601;
HOOGENTABE C.C., Eussen B.H.J., Langeveld A., van Haperen R.,
Winterberg S., Wouters C.H., Grosveld F., de Zeeuw C.I., Galjart N.;
"The murine CYLN2 gene: genomic organization, chromosome localization, and comparison to the human gene that is located within the 7q11.23
Williams syndrome critical region.";
Genomics 53:348-358(1998).
EMBL; AJ228865; CAA13069.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Waterston R.;
Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AC005015; AAF03524.1; -.
InterPro; IPR000938; CAP-Gly.
Pfam; PF01302; CAP_GLY; 2,
PROSITE; PS00845; CAP_GLY; UNKNOWN_2.
SEQUENCE 1046 AA; 115837 MW; 7A0B3C796E1C6E25 CRC64;
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"The sequence of Homo:
Submitted (JUN-1998) to
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MEDLINE=99063792; PubMed=9847074;

Sulston J.E., Waterston R.;

"Toward a complete human genome sequence.";

Genome Res. 8:1097-1108(1998).
                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
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Mammalia; Eutheria; Primates;
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Rodentia;
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sapiens BAC clone GS1-166C5.";
to the EMBL/GenBank/DDBJ databases.
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Catarrhini;
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Matches 8
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MEDLINE-98087115; PubMed-9427243;

A de Zeeuw C.I., Hoogenraad C.C., Goedknegt E., Hertzberg E.,

A de Zeeuw C.I., Hoogenraad C.C., Goedknegt E., Hertzberg E.,

Neubauer A., Grosveld F.G., Galjart N.J.;

"CLIP-115, a novel brain specific cytoplasmic linker protein

the localisation of dendritic lamellar bodies.";

Neuron 19:1187-1199(1997).

R EMBL; AJ000485; CAA04123.1; -.

R InterPro; IPR000938; CAA04123.1; -.

R InterPro; IPR000938; CAP-GLY.

R Pfam; PF01302; CAP-GLY; 2.

R PROSITE; PS00788; TFIIB euk.

R Pfam; PF01302; CAP_GLY; 2.

R PROSITE; PS00788; TFIIB; UNKNOWN_2.

SEQUENCE 1046 AA; 115480 MW; 72E6CE9F76D2A1D0 CRC64;
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055156;
01-JUN-1998 (TrEMBLEEL. 0
01-JUN-1998 (TrEMBLEEL. 0
01-JUN-2002 (TrEMBLEEL. 2
CLIP-115 protein.
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Mammalia; Eutheria;
NCBI_TaxID=10116;
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TE; PS00845; CAP_GLY_1; UNKNOWN_1.
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/SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002_DAT:

/SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002_DAT:
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/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1983.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1984.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1988.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:*
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                                AAR48379
AAY08254
AAB24172
AAB824172
AAB87110
AAR57110
AAY29329
AAU39055
ABB55764
AAU16928
                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
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Human megakaryocyt
Human megsin prote
Human megsin prote
Human megsin prote
Human megakaryocyt
Human secreted pro
Human secreted pro
Human polypeptide
Human novel secret
Mouse megsin prote
                                                                                                                                                                                                                                                                          Description
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62	62	62	62	62	62	62	62	62	62	65	65	65	65	66	66	66	67	67	67	67	67	67	67	67	67	67	67	67	67	67	69	69	69	69
74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	78.3	78.3	78.3	78.3	79.5	79.5	79.5	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	83.1	83.1	83.1	83.1
400	389	379	379	376	376	374	372	188	116	380	380	380	380	431	424	392	1120	400	400	400	400	391	391	391	391	391	391	391	316	135	617	379	368	368
22	22	17	16	22	22	22	22	22	22	22	22	21	20	22	22	22	22	23	22	21	20	23	22	21	21	21	20	20	20	22	21	21	22	21
AAU02962	AAU02973	AAR94367	AAR64159	AAB11125	7	ABB65309	AAU02963	AAU02923	AAU02921	AAB83076	AAG64286	AAB24150	AAY08255	ABB64428	ABB67206	ABB67205 ·	ABG28279	ABB74947	AAY72652	AAB11315 ·	AAY41030	ABB74946	AAY72651	AAB10954	AAB10953	AAB11314	AAY25926	10	AAY28644	AAY72661	AAY15156	AAY15155	AAB83077	AAB24151
	Angiotensin conver	Human elastase inh	Human elastase inh	Human thrombin inh	Thrombin inhibitor	Drosophila melanog	Angiotensin conver	Angiotensin conver	Angiotensin conver	Rat megsin protein	megsin					Drosophila melanog	_		_	Human lung cancer-	Human lung tumor a	-	∍	serine	serin	_	_			Human headpin (for	Human prostate ser		2	

ALIGNMENTS

RESULT 1 AAR48379

AAR48379 standard; Protein; 380 AA.

Human megakaryocyte differentiation factor.

16-AUG-1994 (first entry)

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THE PRINCE OF STREET
WPI; 1994-058782/08.
N-PSDB; AAQ56670.
                           Ishida N, I
Tsujimoto M,
                                                                                  17-JUL-1992;
04-MAR-1993;
                                                                                                                                                  EP583884-A.
                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                     Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                                       (SUNR ) SUNTORY LTD. (TSUJ/) TSUJIMOTO M.
                                                                                                             19-JUL-1993;
                                                                                                                                23-FEB-1994
                           Iwasa F, Kuri
M, Tsuruoka N,
                                                                                 92JP-0212305
93JP-0067339
                                                                                                            93EP-0305654
                           Kurihara T, Miura K, Nakazato
ka N, Yamaguchi N, Yamaichi K;
                                    Ή;
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RESULT 2
AAY08254
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   Query Match
Best Local S
Matches 17
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Best Local S
Matches 17
                                                                                                                                                                        WPI; 1999-276983/23.
N-PSDB; AAX56712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human MDF can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoietin making it useful for treatment of diseases involving a decrease in platelet number
                                             Sequence
                                                                         This invention describes the isolation of novel megsin nucleic acid; proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangia
                                                                                                                                Claim
                                                                                                                                                   Megsin protein expressed specifically in
                                                                                                                                                                                                      Miyata T;
                                                                                                                                                                                                                                                         22-SEP-1997;
                                                                                                                                                                                                                                                                                                   01-APR-1999
                                                                                                                                                                                                                                                                                                                        WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY08254;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD SDS-PAGE and exhibits an isoelectric point of 6.0-7.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  decrease in platelets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New megakaryocyte differentiation epidermoid carcinoma cells, used to
                                                                 cells, such
                                                                                                                                                                                                                          (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                             22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                         Megsin;
                                                                                                                                                                                                                                                                                                                                                                                                                   14-JUL-1999
                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            megsin
                                                                                                                              1; Page 62-64; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7; Page
                                                                                                                                                                                                                                                                                                                                                               rat; murine.
    . Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                                                                         mesangial cell;
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                                                                 as
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     Conservative
                                                                                                                                                                                                                                                                                                                                                                                              protein.
                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                             ₽
Ķ
                                                                IgA nephropathy.
                                                                                                                                                                                                                                                          97JP-0275302
                                                                                                                                                                                                                                                                              98WO-JP04269
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein;
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              100
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              . 0%;
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   Score 83; DB Pred. No. 5.7); Mismatches
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            factor - isolated from human to treat conditions involving
                                                                                                                                                                                                                                                                                                                                                                         diagnosis; disease;
DB 2v,
.5.7e-05;
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5.7e-05;
thes 0;
                                                                                                                                                  mesangial
                      Length 380;
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                                                                            mesangial
   Gaps
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   RESULT 4
AAB83075
ID AAB8
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AC AAB8
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RESULT 3
AAB24142
                                                                                        Query Match
Best Local S
Matches 17
                                                                                                          described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising:
(a) antimegsin protein antibody attached to solid magnetic particles;
(b) direct or indirect fixing for the antibody to the particles; and
(c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the human megsing protein, which is given in the exemplification of the present invention
                                                                                                                                                                                                                                                                    Evaluating biological
                                                                                      Sequence
                                                                                                                                                                                                             The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also
                                                                                                                                                                                                                                                                                                                                                           (KURO/) KUROKAWA K. (FUSO ) FUSO PHARM (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                         19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IgA; immunoglobulin A; detection; renal fur
diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                Example 2;
                                                                                                                                                                                                                                                                                                      N-PSDB; AAA99294.
                                                                                                                                                                                                                                                                                                                                      Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                          17-MAR-2000; 2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200057189-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Megsin; mesangium-predominant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human megsin protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB24142;
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 325
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                                                     Similarity
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SYIEVTEEGTEATAATG
                                                                                                                                                                                                                                                                        renal function sample -
                                                                                        380
                                                                                                                                                                                                                                                Page 66-69;
                                                                                                                                                                                                                                                                      sample
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                        AA;
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99JP-0306623
                                                                                                                                                                                                                                                                                                                                                                         UNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                        LTD
                                                                                                                                                                                                                                                93pp; Japanese
                                                                                                                                                                                                                                                                                comprises assaying megsin
                     17
 341
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                                            0;
                                                     Score
Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA.
                                            Mismatches
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                                                       No.
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                                                       G
                                            DB 21;
5.7e-05;
les 0;
                                                                Length 380;
                                             Indels
                                                                                                                                                                                                                                                                                protein
                                                                                                             present invention
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                                                                                                                                                                                                                                                                            in.
                                            Gaps
                                                                                                                        megsin
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AAB83075 standard;

Protein; 380

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RESULT 5
AAR57110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is human megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is usefu for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
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                                                                                                                                                                                       Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-OCT-2000; 2000WO-JP06988
                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                  16-AUG-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 4; Page 44-46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200124628-A1.
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                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR57110 standard; peptide; 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                     Misc-difference
                                                                                                                                                                                                                                                                                               Human megakaryocyte
                                                                                                                                                                                                                                                                                                                                                                                                    AAR57110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            screening of new treatments
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DB; AAF82438.
                                                                                                                                                sapiens
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17; Conserv
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                                                                                             Location/Qualifiers
note-
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"not determined"
                                              not
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Pred. No. 5.7e-05;
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                                                                                                                                                                                                                                                                                               factor
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RESULT 6
AAY29329
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PRX TXX
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoiettin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY29329;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New megakaryocyte differentiation epidermoid carcinoma cells, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                                                                                                             haematopoiesis regulation; chemotactic; chemokinetic;
                                                                                                                                                                                                                                                                                                            differentiation;
                                                                                                                                                                                                                                                                                                                                   Human; secreted protein; nutrition; cytokine; cell proliferation;
                                                                                                                                                                                                                                                                                                                                                                                   Human secreted protein clone it217_2 protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 19; 47pp;
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20-JAN-1999;
                                             21-JAN-1999;
                                                                                                                                            WO9937674-A1
                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                      tumour invasion
                                                                                                                                                                                                                                                                                                                                                                                                                                     29-SEP-1999
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(TSUJ/) TSUJIMOTO M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JUL-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92JP-0212305
93JP-0067339
99US-0235609
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                                             99WO-US01404
                                                                                                                                                                                                                                      suppressor;
                                                                                                                                                                                                                                                          immune stimulating; vaccine; suppression; gene therapy;
egulation; tissue growth; activin; inhibin; cadherin;
mokinetic; haemostatic; thrombolytic; anti-inflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "not determined"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83.1%;
87.5%;
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Yamaguchi N,
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Pred. No. 0.
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Yamaichi K;
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es 2;
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conditions
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involving
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RESULT 7
AAU39055
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Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a human secreted protein. Human secreted protein polynucleotides and proteins are predicted to have biological activities which would make them suitable for treating, preventing or ameliorating medical conditions in humans and animals, although no supporting data is given. Suggested activities include nutritional activity, cytokine and cell proliferation/differentiation activity, immune stimulating (e.g. as vaccines) or suppressing activity, haemostatic activiny/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, receptor/ligand activity, and tumour activity, cadherin/tumour invasion suppressor activity, and tumour inhibition activity. The polynucleotides are also stated to be useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Agostino N
Jacobs K,
Treacy M,
                                                                                                                                                   cytostatic; antidiabetic; virucide; antiinfertility; anticonvulsant; vasotropic; antiparkinsonian; immunostimulant; dermatological; antirheumatic; antitumor; antiulcer; osteopathic; tranquiliser; cerebroprotective; cytokine; cell proliferation; cell differentiation; immune deficiency; severe combined immunodeficiency; SCID; tumour; autoimmune disorder; multiple sclerosis; rheumatoid arthritis; graft-versus-host disease; myeloid deficiency; wound healing; ulcer; periodontal disease; osteoporosis; osteoarthritis; Alzheimer's disease Parkinson's disease; Huntington's disease; infection; cardiac disease; stroke; sepsis; inflammatory bowel disease; contraceptive; immunogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU39055 standard;
           22-MAR-2001; 2001WO-US09369
                                            11-OCT-2001
                                                                          WO200175068-A2
                                                                                                                                                                                                                                                                                                              Human; secreted protein; antiinflammatory; immunosuppressive; nootropic; neuroprotective; antiarthritic; antimicrobial; vulnerary;
                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU39055;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for gene therapy.
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DB; AAX90444.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160 SYLDVSEEGTEAAAATG 176
                                                                                                                                                                                                                                                                                                                                                                secreted protein it217_2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22; Page 119-120; 139pp; English.
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Lavallie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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76.5%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 20; Length 217; 0.0049;
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                                                                                                                                                                                      disease.
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RESULT 8 ABB55764

ABB55764 standard; Protein; 217

8

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Human polypeptide SEQ ID NO 134. 14-FEB-2002 (first entry)

Human; clone bd306-7; clone yb8-1; ATCC number 98599; gene therapy; immune disorder; bacterial infection; fungal infection; cancer; tumour; autoimmune disorder; systemic lupus erythematosus; wound; ulcer; inhibi osteoporosis; osteoarthritis; nervous system disorder; neuropathy; Alzheimer's disease; Parkinson's disease; Huntington's disease; activin

haemophilia; cardiac infarction; stroke; sepsis; arthritis; vuln ischaemia-reperfusion injury; inflammatory bowel disease; chemot crohn's disease; cytostatic; anti-inflammatory; immunomodulator; neuroprotective; haemostatic; thrombolytic; anti-inflammatory.

chemotactic;

activin; inhibin;

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                                S
                                                                                                                                                        The invention relates to novel human secreted proteins, the nucleic CC acids encoding them. The protein may exhibit cytokine, cell proliferation cor cell differentiation activity or may induce production of other CC or immune suppressing activity, which is useful for the treatment of CC various immune deficiencies and disorders e.g. severe combined CC immunodeficiency (SCID), autoimmune disorders e.g. severe combined CC immunodeficiency (SCID), autoimmune disorders e.g. multiple sclerosis, CC systemic lupus erythematosus, rheumatoid arrhritis, autoimmune pulmonary CC inflammation. The proteins are also useful in the treatment of diseases CC and disorders including tissue, skin and organ transplantation and in CC graft-versus-host diseases (GVHD), in the induction of tumour immunity, CC myeloid or lymphoid cell deficiencies, wound healing and tissue repair, CC in the treatment of burns, incisions and ulcers; as well as in treatment CC inflammatory processes, diseases of the peripheral nervous system, CC Alzheimer's, parkinson's diseases of the peripheral nervous system, CC amylotrophic lateral sclerosis, and Shy-Drager syndrome, infections, CC infarction of cardiac and central nervous system vessel e.g. stroke, CC sepsis, inflammatory bowel disease, ulcers, bone regeneration. The CC contraceptive based on the ability of inhibins to decrease fertility in CC contraceptive based on the ability of inhibins to decrease fertility in CC memale mammals and decrease spermatogenesis in male memanals. The CC proteins and nucleic acids are also useful as food supplements. The CC proteins and nucleic acids are also useful as food supplements. The
                                                                                              Query Match
Best Local :
                                                                            Matches
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Treacy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secreted human proteins, useful as vaccine for treating various diseases such as autoimmune disorders (e.g. multiple sclerosis), nervous system disorders (e.g. stroke) -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAR-2000; 2000US-0539330.
04-DEC-2000; 2000US-0729674.
                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 546-547; 619pp; English.
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DB; AAS59273.
160
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                              1 SYIEVTEEGTEATAATG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z 7
                                                                                              Similarity
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SYLDVSEEGTEAAAATG
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Fechtel K, M
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                                                                            Conservative
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                                                                                              83.1%;
76.5%;
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J, Steininger
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176
                                                                          ω,
                                                                                            Score 69; DB 22;
Pred No. 0.0049;
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er RJ, Spaulding V,
                                                                                                                 Length 217;
                                                                          Indels
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                                                                          Gaps
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The invention relates to isolated polynucleotides (ABA90876-ABA90988) and encoded proteins (ABB55690), especially CR ABA90980) and encoded proteins (ABB55690 ABB55800), especially CR polynucleotides SEQ ID NO 1 (ABB90876) and SEQ ID NO 19 (ABA90885) and CR proteins SEQ ID NO 20 (ABB55698) and SEQ ID NO 19 (ABB55707) contained in CR clones bd306-7 and yb8-1 respectively and the clones bd306-7 and yb8-1 care deposited with the American Type Culture Collection (ATCC) with CR accession number 98599. The polynucleotides and encoded polypeptides have CR cytostatic, anti-inflammatory, immunomodulator, vulnerary, creativin, inhibin, chemotactic, haemostatic, thrombolytic and atti-inflammatory activity and acting as cytokine modulators, haemostatic regulators, tissue growth modulators and/or cadherin CR suppressors. The polypeptides and polynucleotides are useful in gene CR therapies, particularly for preventing, treating or ameliorating any of CR of ingal infections, autolimnune disorders, cancer, systemic lupus CR erythematosus or graft-versus-bost disease; myeloid or lumphoid cell CR of following diseases: immune disorders, cancer, systemic lupus CR erythematosus or graft-versus-bost disease; myeloid or lumphoid cell CR deficiencies; wound, burns, incisions and ulcers, osteoporosis or CR disease, e.g., Alzheimer's, Parkinson's disease, Huntington's CR disease, amyotrophic lateral sclerosis or Shy-Drager syndrome; CR disease, inflammatory response syndrome, isohaemic reperfusion CR or systemic liflammatory response syndrome, isohaemic reperfusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-APR-1997;
04-DEC-1997;
20-DEC-1997;
02-JAC-1998;
07-JAN-1998;
08-JAN-1998;
13-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JAN-1998;
30-JAN-1998;
18-FEB-1998;
30-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jacobs K,
Merberg E
Wong GG,
haemophilia, cardiac infa
or systemic inflammatory
injury, endotoxin lethali
                                                                                                                                                                                                                                                                                                                                                                                                                                   New secreted proteins and encoding polynucleotides, useful in gene therapies, particularly for preventing or treating autoimmune disorders, cancer, graft-versus-host disease, wound, osteoporosis, stroke or inflammations
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(STEI/)
(SPAU/)
(WONG/)
(CLAR/)
(FECH/)
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(MCCO/)
(LAVA/)
(COLL/)
                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 274; 349pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
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DB; ABA90942.
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MCCOY M.

LAVALLIE E R.

COLLINS-RACIE L

EVANCE C.

MERBERG D.

MERBERG D.

MERBERG D.

MERBERG D.

MERBERG G.

STEININGER R J.

SPAULDING V.

WONG G.

CLARK H.

FECHTEL K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              McCoy JM,
), Treacy M,
Clark H, Fe
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97US-067454P.
97US-068379P.
98US-070346P.
98US-070755P.
98US-0771304P.
98US-0775038P.
98US-0775038P.
98US-075038P.
98US-075038P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LaVallie ER,
Agostino MJ,
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syndrome, ischaemia-repertusion ritis, inflammatory bowel disease or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Collins-Racie LA,
Steininger RJ,
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                                                                                                                                                                                                                                                                polypeptides have
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18-APR-2000

19-MAY 2000

07-JUN-2000

30-JUN-2000

07-JUL-2000

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11-JUL-2000

11-JUL-2000

14-JUL-2000

14-JUL-2000

14-AUG-2000

14-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JAN-2000;
04-FEB-2000;
24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Skin
                                                                                                                                                                                                                                                                                                                                                                                                                    16-MAR-2000;
17-MAR-2000;
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2000US-0216880 2000US-0217496 2000US-0217496 2000US-0218290 2000US-022964 2000US-022954518 2000US-0224518 2000US-0225213 2000US-0225214 2000US-0225214 2000US-0225266 2000US-0225266 2000US-0225268 2000US-0225277 2000US-0225277 2000US-0225277 2000US-0225277 2000US-0225277 2000US-0225277

2000US-0214886. 2000US-0215135. 2000US-0216647.

2000US-0186350. 2000US-0189874. 2000US-0190076. 2000US-0198123. 2000US-0205515. 2000US-0209467.

2000US-0184664

2001WO-US01320

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Query Match
Best Local
                                         cytostatic; cardiant; vasotropic; cerebroprotective; nootropic; neuroprotective; antibacterial; virucide; fungicide; opthalmalogical; vulnerary; secreted protein; rheumatoid arthritis; hyperproliferative disorder; cardiovascular disorder; cardiovascular disorder; cerebrovascular disorder; cerebral ischaemia; anglogenesis; nervous system disorder; Rizhelmer's disease; infection; ocular disorcerence infection; wound healing; epithelial cell proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Crohn's disease; foliaceus.
                                                                                                                                         Human; immunosuppressive; cytostatic; cardiant; vaso
                                                                                                                                                                                                                                                                                        AAU16928
Homo sapiens.
                                                                                                                                                                                         Human novel
                                                                                                                                                                                                                         07-NOV-2001
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                            ageing;
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                                                                                                                                                                                                                                                                                        standard;
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                               food
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                             additive;
                                                                                                                                                                                                                                                                                        Protein;
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                                                                                                                                                                                        protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 83.1%;
                                                                                                                                                          antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                      176
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                                                                                                                                                                                                                                                                                                                                                                                                                           Score 69; UB .
Pred. No. 0.00
3; Mismatches
                            preservative;
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0.0049;
                                                                                                                                                          antirheumatic;
                             antiproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23;
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                                                             ocular disorder;
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22-AUG22-AUG22-AUG22-AUG23-AUG30-SEP01-SEP-

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2000US-0226681
2000US-0227182
2000US-0227182
2000US-0227009
2000US-0229287
2000US-0229343
2000US-0229344
2000US-0229344
2000US-0229349
2000US-0229349
2000US-0229349
2000US-0229349
2000US-023949
2000US-023143
2000US-023143
2000US-0231244
2000US-0231244
2000US-0231244
2000US-0231244

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The invention relates to isolated nucleic acid molecules and their CC encoded secreted proteins. The nucleic acids and proteins are used to prevent, treat or ameliorate a medical condition in e.g. humans, mice, cat prevent, treat or ameliorate a medical condition in e.g. humans, mice, cat proteins goats, horses, cats, dogs, chickens or sheep. They can also used in alleviating symptoms associated with the disorders and in ci diagnostic immunoassays e.g. radioimmunoassays or enzyme linked include autoimmune diseases e.g. rheumatoid arthritis.

CC include autoimmune diseases e.g. rheumatoid arthritis.

CC ardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders caused by bacteria, viruses and fungi and ocular disorders e.g. corneal infection, and many other consorders listed in the specification. The polypeptides can also be used to aid wound healing and epithelial cell proliferation, to prevent skin aging due to sunburn, to maintain organs before transplantation, for supporting cell culture of primary tissues, to capabilities, fat content, lipid, protein, carbohydrate, vitamins, mice, and other partitional components. The polypeptides can also be used capabilities, fat content, lipid, protein, carbohydrate, vitamins,
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17-NOV-2000
17-NOV-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnose dis
activity of
haemophilia
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17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
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17-NOV-2000;
17-NOV-2000;
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17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
17-NOV-2000;
minerals,
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17-NOV-2000;
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17-NOV-2000;
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DB; AAS26833.
                                                                                                                                                                                                                                                                                                                                                                                                                                               polypeptides and polynucleotides useful as diagnostic reagents ose diseases or disorders associated with aberrant expression or treating blood clotting disorder, ity of polypeptides, for treating blood clotting disorder.
                                                                                                                                                                                                                                                                                                                                                                                                    11;
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 cofactors
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2000US-0249208

2000US-0249210

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2000US-0249265

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2000US-0251185

2000US-0251869

2000US-0251869
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 other
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 nutritional components.
The present
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29-SEP-2000 29-SEP-2000 29-SEP-2000; 29-SEP

2000US-0234998 2000US-0235484 2000US-0235834 2000US-0235836 2000US-0236327 2000US-0236367 2000US-0236368 2000US-0236369 2000US-0236802 2000US-0236802 2000US-02368037 2000US-02368037

14 - SEP - 21 - SEP - 25 - SEP - 26 - SEP - 27 - SEP - 27 - SEP - 27 - SEP - 27 - SEP - 29 - SEP -

2000

2000US-0234223. 2000US-0234274. 2000US-0234997.

14-SEP-14-SEP-

12-SEP

2000US-0231414. 2000US-0232080. 2000US-0232081. 2000US-0231968. 2000US-0232397.

14-SEP

14 - SEP

-2000; -2000;

2000

2000US-0232398. 2000US-0232399. 2000US-0232400. 2000US-0232401. 2000US-0233063. 2000US-0233064.

02-OCT-2000 02-OCT-2000 02-OCT-2000 02-OCT-2000 02-OCT-2000 03-OCT-2000 13-OCT-2000 20-OCT-2000 20-NOV-2000 20-OCT-2000 20-NOV-2000 20-NOV

2000US-0246478.
2000US-0246523.
2000US-0246524.
2000US-0246525.
2000US-0246526.
2000US-0246527.
2000US-0246528.
2000US-0246532.
2000US-0246610.
2000US-0246611.
2000US-02466113.

2000US - 0237038 2000US - 0237039 2000US - 0237039 2000US - 0239937 2000US - 02419960 2000US - 0241785 2000US - 0241785 2000US - 0241786 2000US - 0241786 2000US - 0241808 2000US - 0241808 2000US - 0241808 2000US - 0241809 2000US - 0241809 2000US - 0241809 2000US - 0241875 2000US - 0246474 2000US - 0246475 2000US - 0246475

Best Local Similarity Query Match Score 69; Pred. No. ; DB 22; Length 340;

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RESULT 11
AAB24151
ID AAB24
XX
AC AAB24
XX
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Best Local
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                                                                                                                                                                                                                                        This invention describes the isolation of novel megsin nucleic acid an proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                           (KURO/)
                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                        Claim 1; Page 76-79; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-276983/23
N-PSDB; AAX56714.
                                                                                                                                                                                                                                                                                                                                                                                      Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09915652-A1
         Mouse megsin
                               30-JAN-2001
                                                      AAB24151;
                                                                         AAB24151 standard; Protein; 368
                                                                                                                                                                                                                                                                                                                             Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                           22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  numan;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse megsin protein
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                                                                                                                               313
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                                                                                                                                                                          14; Conservative
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MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mesangial cell;
                                                                                                                              SYLDVSEEGTEAAAATG
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                                                                                                                                                                                                                     368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  murine
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         protein sequence
                               (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-JP04269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
1..368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note-
                                                                                                                                                                                   83.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "partial sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
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                                                                                                                                                                        Pred. No. 0.00
2; Mismatches
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          ID NO:21
                                                                                                                                                                                    DB 20;
0.009;
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                                                                                                                                                                                              Length 368;
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                                                                                                                                                                                                                                                                                    acid and
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AAB83077
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                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                           The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the mouse megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 89-91; 93pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Evaluating biological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-611642/58
N-PSDB; AAC55239.
         06-OCT-2000;
                                                   WO200124628-A1
                                                                        Mus musculus
                                                                                             Mouse; megsin;
transgenic mous
                                                                                                                               Murine
                                                                                                                                                    10-JUL-2001
                                                                                                                                                                        AAB83077;
                                                                                                                                                                                              AAB83077 standard; Protein; 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-MAR-2000;
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                             12-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                    313
                                                                                                                             megsin
                                                                                                                                                                                                                                                                 SYIEVTEEGTEATAAT 16
                                                                                                                                                                                                                                                    SFIEVSEEGTEATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   renal function sample -
                                                                                              mouse;
                                                                                                                                                                                                                                                                                                                                         368 AA;
                                                                                                                                                                                                                                                                                               Conservative
         2000WO-JP06988
                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-JP01646
                                                                                                                             protein
                                                                                           mesangial cell proliferative nephritis; nephrotropic; se; glomerular disease; animal model; drug screening.
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99JP-0306623
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               comprises assaying
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Length 368; Indels

megsin protein

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RESULT 13
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Best Local S
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                                                                                                Cleavage-site
                                                                                                                                                                                                                                                                  PROSTAPIN; serine protease inhibitor; serpin family; prostate; human; prostate-specific tumour suppressor; apoptosis-inducer; diagnosis; apoptosis-modulator; prognosis; treatment; prostate cancer;
         31-MAR-1999;
                                                                                                                                            Region
                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                      07-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                  AAY15155 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 52-53; 62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-300136/31.
N-PSDB; AAF82440.
                               18-NOV-1999
                                                   WO9958560-A2
                                                                                                                                                                                                  Inhibitory-site
                                                                                                                                                                                                                                                         metastatic
                                                                                                                                                                                                                                                                                                                                                             AAY15155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse model for mesangial cell proliferative nephritis for development
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         screening
                                                                                                                                                                                                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                               prostate
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                    (first entry)
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         99WO-US07123
                                                                                                                                                                                                                                                                                                              serine protease
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                                                                                                                                                    /label= Serine_protease_inhibitory_domain /note= "Also known as reactive-site loop (RSL) contains a hinge region and a variable region. binds to protease active site during inhibition
                                                                                                                                                                                                 Location/Qualifiers 330..347
                                                                                              complex and 344..345
                                                                         undergoes
                                                                                                                   /label= RSL_hinge_region
/note= "confers stability to
                                                                                     'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83.1%;
87.5%;
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                                                                                                                                                                                                                                                                                                               inhibitor
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                                                                                    RSL variable
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                                                                                                                                                                                                                                                                                                               (PROSTAPIN).
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inhibition"
                                                                        inhibition'
                                                                                                        serpins"
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                                                                                    PROSTAPIN
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RSL
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Misc-difference

/note= 289

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codon" codon"

stop stop

stop stop stop

codon" codon"

Misc-difference Misc-difference Misc-difference Misc-difference

233

/note=

/note= 232

"Corresponds "Corresponds Key

Homo sapiens. metastatic

prostate

cancer.

Misc-difference

Location/Qualifiers

point mutation 215

note- "Corresponds

to stop codon resulting due to

note=

codon'

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RESULT 14
AAY15156
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N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is that of a PROSTAPIN protein which is a member c serine protease inhibitor (serpin) family and expressed in normal prostate and locally confined prostate cancer. The sequence is derived from overlapping sequences of human cDNA clones IIP2A6 and IO3. PROSTAR contains a reactive-site loop characteristic of serpin family in the carboxy-terminal region. The protein may function as a prostate-specific tumour suppressor, apoptosis-inducer or apoptosis-modulator. The sequence is useful in diagnosing, prognosing, monitoring and treating prostate cancer, particularly advanced stage and metastatic
                                                                                                                                                                                                                                                                                                                                                                                                              PROSTAPIN mutant; serine protease inhibitor; serpin family; LAPC-9 AD xenograft; androgen dependent LAPC-9 xenograft; cl diagnosis; prognosis; treatment; prostate cancer; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY15156;
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(AFAR/)
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15-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (RAIT/)
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DB; AAZ29049.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         prostate serine protease inhibitor (PROSTAPIN) mutant.
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13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RAITANO A
SAFFRAN D
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HUBERT R S.
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SYLDVSEEGTEAAAATG
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cancer.
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98US-0085720.
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Pred. No. 0.00
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DNA clone
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The present sequence is a PROSTAPIN (prostate serine protease inhibitor) mutant encoded by cDNA clone 2 derived from cDNA library of prostate cancer xenograft LAPC-9 AD which was generated from a bone tumour blopsy of a patient with hormone-refractory metastatic prostate cancer. Clone 2 is a partially unspliced version of wild type PROSTAPIN coding sequence with an insertion sequence and several point mutations. PROSTAPIN is expressed in normal prostate and locally confined prostate cancer, while its expression is lost or attenuated in advanced stage cancer. Wild type PROSTAPIN functionality is either altered or completely lost in the mutant. PROSTAPIN is useful in diagnosing, prognosing, monitoring and treating prostate cancer, particularly advanced stage and
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(HUBE/)
(LEON/)
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15-MAY-1998;
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determining sus
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98US-0085720.
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378
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425
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332
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                                                                                        The present sequence is human headpin (for head and neck serpin (seri protease inhibitor)) partial protein. Headpin is a differentially expressed serine protease inhibitor that belongs to the ov-serpin family. It has been grouped into the cluster of serpins located at chromosome 18q21.3/18q22. The headpin cDNA and protein are used to diagnose and treat cancer, such as of the head and neck, brain, lung, liver, spleen, kidney, lymph node, small intestine, pancreas, blood cells, colon, stomach, breast, endometrium, prostate, testicle, ovary skin, oesophagus, bone marrow or blood. They are used to identify substances that modulate the headpin activity. Antibodies of headpin
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                                                                                                                                                                                                                                           New isolated polynucleotide encoding a headpin (head and neck serpin (serine protease inhibitor)) for diagnosing and treating cancers and for identifying substances that modulate the headpin activity -
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cytostatic; chromosome 18q21.3·22; therapy; cancer.
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                                                                               are also used to diagnose cancers using e.g. enzyme linked
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US-08-611-977-4
US-08-472-659-34
US-08-474-6611-977-34
US-08-611-977-34
US-08-611-977-34
US-08-613-97-110
US-09-643-597-112
US-09-643-597-112
US-09-643-597-112
US-09-200-965-2
US-09-201-965-2
US-08-477-108A-4
US-08-477-112-4
PCT-US93-0322-4
US-08-745-995A-24
US-08-745-995A-24
US-08-745-995A-26
US-08-745-995A-8
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	36,	Sequence	US-08-745-995A-36	4	376	66.3	55	8
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Appl1	۸,	Sequence	US-08-464-148-4	_	376	69.9	58	8

ALIGNMENTS

COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/611,977
FILING DATE: 06-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAN, MAICOLM K.
REGISTRATION NUMBER: 3000
REFERENCE/DOCKET NUMBER: 3000
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEPHONE: (703) 836-6620 TELEFAX: (703) 836-202 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: APPLICANT: TSUROUOKA, NO.
APPLICANT: NAKAZATO, Hiro
APPLICANT: MIURA, Kenju
APPLICANT: ISHIDA, NO. 59
APPLICANT: KURIHARA, Tats COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatil CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Do APPLICANT: ISHIDA, No. 5972886uhiro
APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMACUCHI, No. 5972886omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34 CITY: Alexandria STATE: Virginia INFORMATION: PRY: United States 22313-1404 , Application US/08611977 5972886 Virginia P.O. Box 1404 TSUROUOKA, No. 5972886uo NAKAZATO, Hiroshi TSUJIMOTO, Burns, WASA, Fuyul 836-2021 Doane, Masafumi 001560-204 Swecker & Mathis Version

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                                  ; TOPOLOGY: 1; MOLECULE TYPE: US-08-472-659-34
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   Query Match
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INFORMATION FOR SEQ ID NO:
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.:PE: amino acid
STRANDEDNESS: sir
TOPOLOGY: 1'
OLECULE "
                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
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CURRENT APPLICATION NUMBER: US/08/472,659
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MEDIUM TYPE: Floppy disk
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PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                             REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                              REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Alexandria
                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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                                                                               amino acid
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YAMAGUCHI, NO. 5831030omi
INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/08472659
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NAKAZATO, Hiroshi
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                                                                                                                                                            (703) 836-6620
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100.0%; Score 83;
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 DB 2;
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                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,03
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: OC
TELECOMMUNICATION INFORMATION:
                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                    TYPE: amino acid
                                                                                                                                                                                                                                                 TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
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325 SYIEVTEEGTEATAATG 341
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17; Conserv
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5874253omi
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NAKAZATO, Hiroshi
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                                                                            Score 83;
Pred. No.
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; Mismatches 0;
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                                                                          6.4e-06;
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                                                                                                            US-08-472-659-4
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                                                                          Sequence 4, Applica Patent No. 5831030
                                                                                                                                                                                                                                                                    Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/
FILING DATE: 06-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: MCGOWAI, MAICOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
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                                APPLICANT:
                                              APPLICANT:
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   PPLICANT:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Alexandria
STATE: Virginia
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                                                                                                                                                                                                                                                     Local
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                                                                                          Application US/08472659
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KURIHARA, Talu-
YAMAICHI, KOZO
YAMAICHI, NO. 5972886omi
TSUJIMOTO, Masafumi
IWASA, Fuyuki
TSUROUOKA, No. 5831030uo
NAKAZATO, Hiroshi
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TSUROUOKA, No. 5972886uo
NAKAZATO, Hiroshi
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Pred. No.
                                                                                                                                                                                                                                      6.4e-06;
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TELEFAX: (703)
TELEFAX: (703)
TELEFAX: (703)
TELEFAX: (703)
TYPE: amino acids
TYPE: amino acid
TYPE: amino acid
                                                                                                                                                                Patent No. 5874253 GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                                                                                                                                                 matches .
                                                                                      APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-248
TELECOMMUNICATION INFORMATION:
                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0
FILING DATE: 14-JUL-1993
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
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SOFTWARE: Patentin Rela
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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               APPLICANT: YAMAGUC TITLE OF INVENTION:
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 NUMBER OF
                                             APPLICANT:
                                                                           APPLICANT:
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14; Conserv
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                         MIURA, Kenju
ISHLDA, NO. 5874253uhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAICHI, KOZO
YAMAGUCHI, NO. 5874253omi
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                                                                                                                                                  TSUJIMOTO, Masafumi
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VENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                  TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                             linear
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MEGAKARYOCYTE DIFFERENTIATION FACTOR 34
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Pred. No. 3.2e
0; Mismatches
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2;
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                                                                     ; ORGANISM: Homo sapiens US-09-123-912-110
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US-09-123-912-110
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                                                                                                                    SOFTWARE: Pa
SEQ ID NO 110
LENGTH: 391
                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Reed, Steven G.
APPLICANT: Wang, Tongtong
                                                                                                                                                                                                                                                                                                                                         Sequence 110, Application US/09123912A Patent No. 6312695
 Best Local Sin
Matches 13;
                                    Query Match
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                                                                                                                                                                              FILE REFERENCE: 210121.455C1
CURRENT APPLICATION NUMBER: US/09/123,912A
CURRENT FILING DATE: 198-07-27
PRIOR APPLICATION NUMBER: 09/040,802
PRIOR FILING DATE: 1998-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/474,661
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
CLASSIFICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION NUMBER: JP 5-067339
PRIOR APPLICATION NUMBER: JP 5-067339
                                                                                                                                                                                                                                                    TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY OF LUNG CANCER FILE REFERENCE: 210121.455C1
                                                                                                                                                                         NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (703) 836-6620
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
TYPE: amino acid
                                                                                                        TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: REA, TERESA STANEK
REGISTRATION NUMBER: 30,4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
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TOPOLOGY: lir
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OPERATING SYSTEM: PC-DOS/MS-DOS
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87.5%;
                 80.7%;
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Pred. No. 3.2e-05;
Score 67; DB 4; Length 391; Pred. No: 0.0027; Indels 2; Mismatches 2; Indels
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US-09-123-912-112
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US-09-643-597-110
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                                                                                                                                      SOFTWARE: Pa
SEQ ID NO 112
LENGTH: 400
TYPE: PRT
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SEQ ID NO 110
LENGTH: 391
TYPE: PRT
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Best Local (
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                                                                   Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                  Sequence 112, Application US/09123912A
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                                                                                                                                                                                                                                                               APPLICANT: Reed, Steven G.
APPLICANT: Wang, Tongtong
TITLE OF INVENTION: COMPOUNDS AND METHODS
FILE REFERENCE: 210121.455C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/643,597
CURRENT FILING DATE: 2000-08-21
NUMBER OF SEQ ID NOS: 369
                                                                                                                                                                                          PRIOR FILING DATE: 1998-0: NUMBER OF SEQ ID NOS: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: COMPOSITIONS AND TITLE OF INVENTION: AND DIAGNOSIS OF FILE REFERENCE: 210121.455C11
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                                                                                                                                                                                                                                                                                                                                                                                                                    343 SEVAVTEEGTEAAAATG 359
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               1 SYIEVTEEGTEATAATG 17
                                                      l Similarity
13; Conserv
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Fan, Liqun
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                                                                                                                                                                              PatentIn Ver. 2.0
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Skeiky, Yasir A.W.
Henderson, Robert A.
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                                                      Conservative
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                                                                   80.7%;
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76.5%;
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Pred. No.
                                                                   Score 67; DB 4; Pred. No. 0.0028;
                                                      Mismatches
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0.0027;
                                                                                                                                                                                                                                                                              FOR THERAPY OF LUNG CANCER
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US-09-200-965-2
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SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 112
LENGTH: 400
TYPE: PAT
ORGANIZM: Homo sapien
US-09-643-597-112
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Patent No. 6133422
GENERAL INFORMATION:
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Patent No. 6426072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER FILE REFERENCE: 210121.455C11

CURRENT APPLICATION NUMBER: US/09/643,597

CURRENT FILING DATE: 2000-08-21
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APPLICANT:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/171,817
FILING DATE: 22-DECEMBER-1993
ATTORNEY/AGENT INFORMATION:
NAME: FERRARO, GREGORY D.
NAME: 76.134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PPLICANT:
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                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 INC
                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS.
ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN,
ADDRESSEE: CECCHI, STEWART & OLSTEIN
STREET: 6 BECKER FARM ROAD
                                                                                                                                               SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: ROSEN, ET AL. TITLE OF INVENTION: Thro
                                                                                                                                                                           COMPUTER: IBM PS/
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                  STREET: 6 BECKE
CITY: ROSELAND
                                                                                               CLASSIFICATION:
                                                                                                                  FILING DATE:
                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                    COUNTRY: UZIP: 07068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
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Fan, Liqun
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                                                                                                                                                                                                                                                                   USA
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                                                               08/171,817
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Pred. No. 0.0028;
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Length 400; Indels

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Gaps

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TELEPHONE: 201-994-1700

REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-47

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RESULT 12
US-08-121-714-4
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Best Local :
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                                               Matches
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                                                                                                                                                                                                                                                                                    FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662
APPLICATION NUMBER: 07/662
ATTORNEY/AGENT INFORMATION:
NAME: Fraser, Janis K
REGISTRATION NUMBER: 34,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 50Z or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-570
TELEPAX: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH TITLE OF INVENTION: TUMOR SUPPRESSING ACTIVITY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Boston
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                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
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1 SYIEVTEEGTEATAAT 16
                                               Similarity
12; Conserv
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225 Franklin Street
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                                               Conservative
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                                                                                                                       linear
                                                          74.7%;
75.0%;
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                                                                                                                                                                                                                                                                                                                                                     07/662,216
                                                                                                                                                                                                                                                                                                                                                                                 07/844,296
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                                             Score 62; DB 1;
Pred. No. 0.017;
2; Mismatches
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Pred. No. 0.017;
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SEVEVNEEGTEAAAAT 337

CORRESPONDENCE ADDRESS:

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US-08-477-112-4
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US-08-477-108A-4
GENERAL INFORMATION:
APPLICANT: Sager, RU
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                               Sequence 4, Application US/08477112 Patent No. 5905023
                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application US/08477108A
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                                                                                                                                                                                                                                                                                                                                                                                          TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/121,714
FILING DATE: 09/01/93
APPLICATION NUMBER: 07/938,823
FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844,296
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662,216
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
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MEDIUM TYPE: 3.5" Di
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/477,108A FILING DATE: June 7, 1995
                                                                                                                                                                                                                                                                                                                                                                  TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM:
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                                                                                                                                                                                322 SFVEVNEEGTEAAAAT 337
                                                                                                                                                                                                                                               12;
                                                                                                                                                                                                   1 SYIEVTEEGTEATAAT 16
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                                                                                                                                                                                                                                                                                                                                                             amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Massachusetts
T: U.S.A.
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225 Franklin Street
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VENTION: MASPIN, A NOVEL SERPIN WITH
                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zou, Zhiqiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sager, Ruth
                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3: 3.5" Diskette, 1.44 mb
IBM PS/2 Model 50Z or 55SX
SYSTEM: MS-DOS (Version 5.0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02/28/91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Janis K
                                                  Ruth
                                                                                                                                                                                                                                                                74.7%;
75.0%;
 MASPIN, A NOVEL SERPIN WITH TUMOR SUPPRESSING ACTIVITY 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34,819
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                                                                                                                                                                                                                                                                Score 62; DB 1;
Pred. No. 0.017;
                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                               DB 1;
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                                                                                                                                                                                                                                                                               Length 379;
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PCT-US93-08322-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application GENERAL INFORMATION: Sager,
                                     COUNIAL COUNTY OF THE PROPERTY OF THE PROPERTY
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Best Local S
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ZIP: 02110-280*

ZIP: 02110-280*

COMPUTER READABLE FORM:

COMPUTER: 3.5° Diskette, 1.44 ML

MEDIUM TYPE: 3.5° Diskette, 5.5 or 55SX

COMPUTER: IBM PS/2 Model 50Z or 55SX

COMPUTER: MS-DOS (Version 5.1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                 COMPUTER: IBM PS/2 Model 50% or 55%;
OPERATING SYSTEM: MS-DOS (Version 5
SOTTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
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NAME: Fraser, Janis K.

REGISTRATION NUMBER: 34,819

REFERENCE/DOCKET NUMBER: 06570/002003

TELECOMMUNICATION INFORMATION:

TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Sager, Ruth TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH TUMOR SUPPRESSING ACTIVITY NUMBER OF SEQUENCES: \theta
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CURRENT APPLICATION DATA:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                        STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                 CITY:
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APPLICATION NUMBER: 0
FILING DATE: 09/01/92
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12; Conserv
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75.08;
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PRIOR APPLICATION DATA:

APPLICATION NUMBER: 07/938,823
FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844,296
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662,216
FILING DATE: 02/28/91
ATTORNEY/AGENT INFORMATION:
NAME: Fraser Janis K.
REGISTRATION NUMBER: 34,819
REFERENCE/DOCKET NUMBER: 00530/072001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEPHONE: (617) 542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 379
TYPE: maino acid
STRANDEDNESS:
TOPOLOGY: linear
PCT-US93-08322-4

74.7%; Score 62; [
      망
                                                                                Query Match 74.7%; Score 62; DB 5; Length 379; Best Local Similarity 75.0%; Pred. No. 0.017; Matches 12; Conservative 2; Mismatches 2; Indels
1 SYIEVTEEGTEATAAT 16
|::|| ||||| |||
322 SEVEVNEEGTEAAAAT 337
                                                                             2; Indels
                                                                                0;
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Search completed: July 11, 2003, 12:02:07 Job time: 4.0395 secs

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Title:
Perfect score:
Sequence:
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Maximum Match 100%
Listing first 45 summaries
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DB seq length: 2000000000
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: //cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep: *
: //cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep: *
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: //cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep: *
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               US-10-091-442-4

US-10-991-442-34

US-10-991-442-34

US-10-991-442-34

US-10-91-744-134

US-10-9764-898-169

US-10-12-896-946

US-10-198-070-67

US-10-198-070-67

US-10-198-070-70

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Sequence 4, Appli
Sequence 34, Appli
Sequence 34, Appl
Sequence 134, Appl
Sequence 169, App
Sequence 946, App
Sequence 67, Appl
Sequence 67, Appl
Sequence 70, Appl
Sequence 947, App
Sequence 317, App
Sequence 110, App
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US-10-091-442-4
; Sequence 4, Application ...
; Patent No. US20020164711A1
; PATENT INFORMATION:
GENERAL INFORMATION:
TSUJIMOTO
TSUGRACHOR
TSUGRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 6-067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGCHI, KOZO
YAMAGCHI, NO. US20020164711A1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
RUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSE: Burns, Doane, Swecker & Mathis
STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Alexandria
STATE: Virginia
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ISHIDA, No. US20020164711Aluhiro
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NAKAZATO, Hiroshi
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0 US-09-925-300-1400
US-09-925-300-1470
US-09-925-300-1470
US-09-923-187-31
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US-09-823-187-28
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US-09-823-187-39
US-09-974-298-95
US-10-176-758-452
US-10-175-738-452
US-10-175-738-452
US-10-176-482-452
US-10-176-482-452
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US-10-176-757-452
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Sequence 28, Appl
Sequence 29, Appl
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Sequence 452, App
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Sequence 112, App
Sequence 112, App
Sequence 1200, Ap
Sequence 1440, Ap
Sequence 27, Appl
Sequence 31, Appl
Sequence 27, Appl
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
                         FILING DATE: 17-JUL-
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
                                                                                             FILING DATE: 14-JUL-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                   SUFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Polocial
                                                            APPLICATION NUMBER: JP.4:
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                              APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998 CLASSIFICATION:
                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 4:
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17; Conserv
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REFERENCE/DOCKET NUMBER: 001560-247
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YAMAGUCHI, No. US20010026931A1omi
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                04-MAR-1993
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                                                                                                                             US 08/091,028
                                JP 6-067339
                                                                               JP.4-212305
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Pred. No.
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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TELECOMMUNICATION INFORMATION:
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                TELECOMMUNICATION INFORMATION
                                                                                     FILING DATE: 04-MAR-19 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                     CLASSIFICATION: <Unknown> PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS: ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KURTHARA, Tatsuya
YAMAICHI, KOZO
YAMAICHI, KOZO
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
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17; Conserv
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                                                NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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TELEPHONE:
                                 REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                       APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                           APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
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                                                                                                       APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                            FILING DATE:
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ISHIDA, No. US20020164711A1uhiro
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NAKAZATO, Hiroshi
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(703) 836-6620
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Pred. No.
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                                   TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
US/09/140,719
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SEQUENCE CHARACTERISTICS: LENGTH: 380 amino acids
                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
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                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
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                                                                                              REFERENCE/DOCKET NUMBER: 00:
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nes 17; Conserv
                                                                                                                        REGISTRATION NUMBER:
                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 04-MAI
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                                                                    TELEPHONE:
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RY: United States
22313-1404
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YAMAICHI, KOZO
YAMAGUCHI, NO. US20010026931Alomi
YAMAGUCHI, NO. US20010026931Alomi
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TSUROUOKA, No. US?
NAKAZATO, Hiroshi
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US-09-764-898-169
; Sequence 169, Application US/09764898
; Patent NO. US20020090673A1
; GENERAL INFORMATION:
; APPLICANY: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
; FILE REFERENCE: PIZO1
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SOFTWARE: PatentIn Ver. 2
SEQ ID NO 134
                                                         SOFTWARE: PatentIn Ver. SEQ ID NO 169
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/729,674
CURRENT FILING DATE: 2000-12-04
PRIOR APPLICATION NUMBER: 09/539,330
PRIOR FILING DATE: 2000-03-30
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ORGANISM: Homo sapiens
-09-764-898-169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                      CURRENT APPLICATION NUMBER: US/09/764,898
CURRENT FILING DATE: 2001-01-17
                                                                                        Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 311
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                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 217
TYPE: PRT
ORGANISM: Homo sapiens
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                            TYPE: PRT
                                           LENGTH:
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Local Similarity 100.0%;
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160 SYLDVSEEGTEAAAATG 176
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Evans, Cheryl
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76.58;
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RESULT 8
US-09-895-814-946
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                                                   Sequence 946, Application US/09895814
Publication No. US20020193296A1
GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Dillon, Davin C.
APPLICANT: Mitcham, Jennifer L.
                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/012,896
CURRENT FILING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 1011
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 946
LENGTH: 379
TYPE: PRT
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Best Local Similarity
Matches 13; Conserv
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C27
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APPLICANT: Dillon, Davi
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322 SYLDVSEEGTEAAAATG 338
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          Harlocker, Susan L.
Jiang, Yuqiu
Kalos, Michael D.
Retter,
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Houghton, Raymond L.
Vinals de Bassols, Carlota
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Kalos, Michael D.
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Mitcham, Jennifer L.
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Hepler, William T.
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D. US20020183251A1
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Pred. No.
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Pred. No. 0.0023;
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PRIOR APPLICATION NUMBER: 60/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/331,477
PRIOR FILING DATE: 2001-11-16
NUMBER OF SEQ ID NOS: 125
SOFTWARE: PATENTIAL OF SEQ ID NOS: 125
SOFTWARE: PATENTIAL OF SEQ ID NOS 125
LENGTH: 392
TYPE: PRT
ORGANISM: Homo sapiens
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Publication No. US20030109437A1
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
APPLICANT: AVERBACK, PAUL
APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN
TITLE OF INVENTION: CONDITIONS REQUIRING
TITLE OF INVENTION: CELLS
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CURRENT FILING DATE: 2001-06-29
NUMBER OF SEQ ID NOS: 990
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 946
LENGTH: 379
TYPE: PRT
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Best Local Similarity
Matches 13; Conserv
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Best Local :
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C26
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335 SYLDVSEEGTEAAAATG
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                           1 SYIEVTEEGTEATAATG
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Vinals de Bassols, Carlota
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McNeill, Patricia D.
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Hepler, William T.
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Carter, Darrick
                                                                  Conservative
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Pred. No. 0.0026;
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                                                                                                 Length 392;
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-198-070-67
                                                                  Query Match
Best Local Similarity
Matches 13; Conserv
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                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 70
LENGTH: 392
TYPE: PRT
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Best Local :
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APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND OTHER
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003,000008
CURRENT FILING DATE: 2002-07-19
PRIOR APPLICATION NUMBER: 05/306,161
PRIOR APPLICATION NUMBER: 60/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/331,477
PRIOR FILING DATE: 2001-11-16
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TITLE OF INVENTION: PEPTIDES EFFECTIVE IN
TITLE OF INVENTION: CONDITIONS REQUIRING
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003.000008
CURRENT APPLICATION NUMBER: US/10/198,070
CURRENT FILING DATE: 2002-07-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: AVERBACK, PAUL APPLICANT: GEMMELL, JACK
                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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1 Similarity 76.5%;
13; Conservative
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                      1 SYIEVTEEGTEATAATG 17
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SYLDYSEEGTEAAAATG 351
                                                                              Conservative
                                                                                              83.1%;
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Pred. No. 0.0027;
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Pred. No. 0.
                                                                              Mismatches
                                                                      DB 9; LC. 0.0027; 1;
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RESULT 12

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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 947
LENGTH: 617
TYPE: PRT
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                                                                                                                                                                                          GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Meagher, Madeleine Joy
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C27
CURRENT APPLICATION NUMBER: US/10/012,896
CURRENT FILING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 1011
                                                                             APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: VARIANT
LOCATION: 90, 215, 225, 232, 233, 289, 309,
LOCATION: 369, 374, 378, 425, 430
OTHER INFORMATION: Xaa - Any Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
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                                               APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                             Local Similarity 76.5%; Pred. No. es 13; Conservative
                                                                                                                                                                                          INFORMATION:
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                                                                                                                                                                                                                                                                                                      560 SYLDVSEEGTEAAAATG 576
                                                                                                                                                                                                                                                                                                                     1 SYIEVTEEGTEATAATG 17
Day, Craig H.
Vedvick, Thomas S.
Carter, Darrick
Li, Samuel X.
                                                                                                                                                                        Xu, Jiangchun
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Vinals de Bassols, Carlota
                                                                                       Jiang, Yuqiu
Kalos, Michael D.
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Hepler, William T.
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                                                           Retter, Marc W. Stolk, John A.
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b. US20020193296A1
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                                                                                                                                                                                                                                                                                                                                                                                                    DB 9;
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US-09-466-396A-110
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; NAME/KEY: variant
; LOCATION: (1)...(617)
; OTHER INFORMATION: Xaa - Any amino acid
US-09-895-814-947
                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens US-10-157-031-355
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Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 13; Conserv
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SEQ ID NO 355
LENGTH: 391
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SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 947
LENGTH: 617
TYPE: PRT
ORGANISM: Homo sapiens
                                      GENERAL INFORMATION:
                                                       Sequence 110, Application US/09466396A Publication No. US20030119763A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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APPLICANT: Wang, To
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER FILE REFERENCE: 210121.427C26

CURRENT APPLICATION NUMBER: US/09/895,814

CURRENT FILING DATE: 2001-06-29
                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/157,031
CURRENT FILING DATE: 2002-05-30
                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Lobashev, A. V.

APPLICANT: Krukovskaya, L. L.

TITLE OF INVENTION: In silico screening for phenotype-associated expressed sequences FILE REFERENCE: 2760-103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Baranova, A. V.
APPLICANT: Yankovsky, N. K.
APPLICANT: Kozlov, A. P.
                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 415
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                                                                                                                                                         334 SFVAVTEEGTEAAAATG 350
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 SYIEVTEEGTEATAATG 17
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Houghton, Raymond L.
Vinals de Bassols, Carlota
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Hepler, William T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10157031
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                                                                                                                                                                                                                             Conservative
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                        Tongtong
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      COMPOUNDS AND METHODS FOR THERAPY AND
                                                                                                                                                                                                                                           80.7%;
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76.5%;
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                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 617;
                                                                                                                                                                                                                                                         Length 391;
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                        QΥ
                                                                                                    ; TYPE: PRT; ORGANISM: Homo sapien US-09-466-396A-110
                                                                                                                                            SOFTWARE: Fa
SEQ ID NO 110
LENGTH: 391
                                Query Match
Best Local Similarity 70...
Best Local Similarity 70...
Conservative
                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/466,396A CURRENT FILING DATE: 1999-12-17
                                                                                                                                                                                                                    TITLE OF INVENTION: DIAGNOST.
                                                                                                                                                                                   NUMBER OF SEQ ID NOS:
334 SFVAVTEEGTEAAAATG 350
                1 SYIEVTEEGTEATAATG 17
                                                                                                                                                                    FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                      DIAGNOSIS OF LUNG CANCER
                                                                80.7%;
76.5%;
                                                   2
                                                              Score 67; L
Pred. No. 0.
                                                     Mismatches
                                                                DB 9;
0.0057;
                                                                          Length 391;
                                                     Indels
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Gaps

0;

Search completed: July 11, 2003, 12:37:33 Job time: 5.98337 secs

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 11, 2003, 11:45:06; Search time 3.42827 Seconds (without alignments)
476.708 Million cell updates/sec

US-10-091-442-4 83

Title: Perfect score:

Sequence: SYIEVTEEGTEATAATG

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

Total number of hits satisfying chosen parameters:

283224 segs, 96134422 residues

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

PIR_73:* 1: pir1:* p1r1:* p1r2:* p1r3:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

;	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10		60	7	6	· cs	4	w	N	_	NO.	Result
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•	7	•	•	•	٠	٠	63.9	٠	65.1	65.1	66.3	•	67.5	•	•	٠	•	69.9	•	•	٠	71.1	71.1	72.3	72.3	74.7	74.7	74.7	80.7	Match I	Query
	252	222	93	429	399	398	397	559	415	407	403	418	410	379	213	398	374	397	376	374	390	390	378	399	388	379	378	376	391	ength	
(2 50																			DB ID	
	SARO	WMVZB4	S66290	49595	06488	\$65782	139184	896648	A32853	D84518	08102	S31507	S70647	A42421	A26423	S29819	AH1903	T06183	B59273	59273	38202	I38201	A57488	DXBHZ	DYCH	S27383	38962	48681	C7118	D	
arbine i ancientinoc	1 25+1061		alpha 1 antichymot	probable serine pr	serpin WZS2 - whea	! E	bomapin - human	hypothetical prote	plasminogen activa	probable serpin (i	serine proteinase	serine proteinase	neuroserpin precur	leukocyte elastase	'n	serpin - barley	eti	serpin - barley		proteinase inhibit	leupin precursor -	œ	se in	protein 24 - barle	ovalbumin-related	elastase inhibitor		1 thron	n serine p	Description	

placental thrombin inhibitor - human
N;Alternate names: cytoplasmic antiproteinase; intracellular serine proteinase inhibi
C;Species: Homo sapiens (man)
C;Date: 07-Apr-1994 #sequence_revision 07-Jul-1995 #text_change 18-Jun-1999
C;Accession: A48681; A54352; A46672; B46672; C46672; S35750
R;Coughlin, P: Sun, J.; Cerruti, L.; Salem, H.H.; Bird, P.
Proc. Natl. Acad. Sci. U.S.A. 90, 9417-9421, 1993
A;Title: Cloning and molecular characterization of a human intracellular serine prote
A;Reference number: A48681; MUID:94022386; PMID:8415716

A48681

A;Cross-references: GB:Z22658; NID:g297411; PIDN:CAA80373.1; PID:g297412
A;Experimental source: placenta
A;NOte: authors translated the codon CAA for residue 198 as Gly
R;Morgenstern, K.A.; Sprecher, C.; Holth, L.; Foster, D.; Grant, F.J.; Ching, A.; Kis
Biochemistry 33, 3432-3441, 1994
A;Title: Complementary DNA cloning and kinetic characterization of a novel intracellu
A;Reference number: A54352; MUID:94183847; PMID:8136380

A; Molecule type: mRNA A; Residues: 1-376 <COU>

4.5	43	42	41	40	39	38	37	36	35	34	ω ω	32	<u>3</u> 2	30
51	51	51	51	51	51	51	51	51	52	52	52	52	52	52
61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	62.7	62.7	62.7	62.7	62.7	62.7
397	366	353	353	344	216	66	64	64	391	345	344	344	344	341
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148717	T16119	WMVZ2C	WMVZS1	S24676	B26423	S15629	S15633	S15635	H96517	WMVZW2	T28611	E72173	S46871	IHZVMW
proteinase inhibit	hypothetical prote	antithrombin-III h	antithrombin-III h	serpin - Ectromeli	serine proteinase	Spi2	Sp12		protein T2E6.22 (i	antithrombin-III h	hypothetical prote	D2R protein - vari	Bl3R protein - var	antithrombin-III h

ALIGNMENTS

RESULT 2	RESU
2y 1 SYIEVTEEGTEATAATG 17 :: 	Qу
Query Match 80.7%; Score 67; DB 2; Length 391; Best Local Similarity 76.5%; Pred. No. 0.0023; Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;	Ma Ma
C;Genetics: C;Genetics: C;Superfamily: antichrombin III C;Keywords: serine proteinase inhibitor F;355/Inhibitory site: Val (unidentified proteinase) #status predicted	E; 35
A;Status: preliminary A;MoLecule type: mRNA A;Residues: 1-391 <spr> A;Cross_references: GB:AF169949; NID:g5911368; PIDN:AAD55765.1; PID:g5911369</spr>	A; St A; Mc A; Cr
R;Spring, P.; Nakashima, T.; Frederick, M.; Henderson, Y.; Clayman, G. R;Spring, P.; Nakashima, T.; Frederick, M.; Henderson, Y.; Clayman, G. Biochem. Biophys. Res. Commun. 264, 299–304, 1999 A;Title: Identification and cDNA cloning of headpin, a novel differentially expressed A;Reference number: JC7118; MUID:99458661; PMID:10527881 A;Accession: JC7118	A; Re
RESULT 1 JC7118 headpin serine proteinase inhibitor - human C;Species: Homo sapiens (man) C;Date: 19-May-2000 #sequence_revision 19-May-2000 #text_change 26-May-2000 C;Date: 19-May-2000	RESU JC71 head C; Sp

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A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-379 <REM>
A;Cross·references: EMBL;
R;Packard, B.Z.; Lee, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: mRNA
A; Rosidues: 1-174, 'E', 176-361, 'S', 363-376 < MOR>
A; Residues: 1-174, 'E', 176-361, 'S', 363-376 < MOR>
A; Cross-references: GB:S69272; NID:g546087; PIDN:AAB30320.1;
A; Cross-references: GB:S69272; NID:g546087; PIDN:AAB30320.1;
A; Cross-references: GB:S69272; NID:g546087; PIDN:AAB30320.1;
A; Note: sequence extracted from NCBI backbone (NCBIN:145231, R; Coughlin, P.B.; Tetaz, T.; Salem, H.H.
R; Coughlin, P.B.; Tetaz, T.; Salem, H.H.
J. Biol. Chem. 268, 9541-9547, 1993
                                                                                                                 R;Remold-O'Donnell, E.; Chin, J.; Alberts, M.
Proc. Natl. Acad. Sci. U.S.A. 89, 5635-5639, 1992
A;Title: Sequence and molecular characterization of human A;Reference number: S27383; MUID:92302296; PMID:1376927
A;Accession: S27383
                                                                                                                                                                                                                       elastase inhibitor - human
C;Species: Homo sapiens (man)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 05-Sep-1997
C;Accession: S27383; S65750
C;Accession: S27383; S65750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: Primary structure of a porcine leukocyte serpin A;Reference number: S38962; MUID:94039085; PMID:7901009 A;Accession: S38962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Sus scrofa domestica (domestic pig)
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997
C;Accession: S38962
R;Teschauer, W.F.; Mentele, R.; Sommerhoff, C.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
S38962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Superfamily: antithrombin III C; Keywords: blocked amino end; (F; 341/Inhibitory site: Arg (thro
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A; Residues: 47-60;63-81;91-98 <CO2>
A; Experimental source: placenta, leukemic of A; Note: sequence modified after extraction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: protein A; Residues: 1-378 <TES>
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A;Map position: 6p25-6p24.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Reference number: A46672; MUID:93252826; PMID:8486644 A;Accession: A46672
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A;Title: Identification and purification of a novel serine proteinase inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eur. J. Biochem. 217, 519-526, 1993
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Best Local
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  EMBL:M93056
e, S.S.; Remold-O'Donnell,
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75.08;
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rombin) #status predicted
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Pred. No. 0.015;
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    Komoriya,
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protein Z4 - barley
N;Alternate names: major endosperm albumin
C;Species: Hordeum vulgare (barley)
C;Date: 30-Jun-1987 #sequence_revision O1-Dec-2000 #text_change O1-Dec-2000
C;Accession: S13822; A01252
R;Brandt, A.; Svendsen, I.; Hejgaard, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Superfamily: antithrombin III
C;Keywords: glycoprotein; bhosphoprotein; serine proteinase inhibitor
C;Keywords: glycoprotein; bhosphoprotein; serine proteinase inhibitor
F;74-121/Disulfide bonds: *Status predicted
F;293/Binding site: carbohydrate (Asn) (covalent) *Status predicted
F;345/Binding site: phosphate (Ser) (covalent) *Status predicted
  R;Hejgaard, J.;
FEBS Lett. 180,
                     A; Kesiuues. A; Cross-references: GB: X51726; N: D: Heigrard, J.; Rasmussen, S.K.;
                                                                 A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-399 <BRA>
                                                                                                                                                        Eur. J. Blochem. 194, 499-505, 1990
A; Title: A plant serpin gene. Structure, organization and A; Reference number: S13822; MUID:91099324; PMID:2269280
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ovalbumin-related r protein - chicken
C;Species: Gallus gallus (chicken)
C;Date: 17-Dec-1982 #sequence_revision 17-Dec-1982 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Superfamil
C; Keywords:
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A;Cross-references: GDB:132914;
A;Map position: 6p25-6p24 .3
C;Superfamily: antithrombin III
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A;Title: A serpin from human tumor cells with direct lymphoid immunomodulatory activi
A;Reference number: S65750; MUID:96049524; PMID:7578269
A;Accession: S65750
A;Status: preliminary
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A; Residues: 1-388 <HEI>
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                                                                                                                                        A; Accession: S13822
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Rasmussen, 989-94, 1985
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75.08;
                       NID:g19067; PIDN:CAA36015.1; Brandt, A.; Svendsen, I.
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Pred. No.
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                                            PID:g19068
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Sequence

homology between barley endosperm protein

2

and protease

inhibitors

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I38201
Squamous cell carcinoma antigen 1 - human
C;Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #text_change 26-May-2000
C;Date: 138201; 138200; G01631; J70966; J70967
C;Accession: I38201; 138200; Fish, K.E.; Miller, E.; Pena, J.C.; Treter, S.D.;
Proc. Natl. Acad. Sci. U.S.A. 92, 3147-3151, 1995
A;Title: A serine proteinase inhibitor locus at 18q21.3 contains a tandem duplica
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C;Superfamily: antithrombin III
C;Keywords: serine proteinase inhibitor;
F;357/Inhibitory site: Met (unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 220-399 (HEJ>
A; Cross-references: GB: X05902; NID:g19078; PIDN:CAA29331.1; PID:g19079
A; Note: most of the sequence has been confirmed by amino acid sequencing
A; Note: most of the sequence, J; Heigaard, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proteinase inhibitor Spi3 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 08-Dec-1995 #sequence_revision 08-Dec-1995 #text_change 16-Jul-1999
C;Accession: A57488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Nielsen, G.; Johansen, H.; Jensen, J.; Hejgaard, J.
Barley Genet. Newsl. 13, 55-57, 1983
A;Title: Localization on barley chromosome 4 of genes coding for beta-amylase (Bmyl) and A;Reference number: A90095
A;Contents: annotation; map position
C;Comment: A major component of the endosperm albumin, this protein acts as a storage put ins of the antithrombin-III superfamily suggests that it also has an inhibitory function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Map position: 13
C; Superfamily: antithrombin III
C; Keywords: serine proteinase in
F; 343/Inhibitory site: Arg (unio
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J. Biol. Chem. 270, 16089-16096, 1995
A;Title: Gene structure, chromosomal localization, and expression of the murine homologue, A;Reference number: A57488; MUID:95332310; PMID:7608171
A;Accession: A57488
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A; Residues: 1-378 <SUN>
A; Cross-references: GB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Gene: Pazl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Genetics:
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A; Accession: A01252
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary
A; Status: nucleic acid sequence
                                                                                                                                                                                                                                                                                  RESULT
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Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                          321 AFVEVNEEGTEAAAAT 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72.3%;
1 Similarity 75.0%;
12; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     serine proteinase inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                            1 SYIEVTEEGTEATAAT 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GB:U25844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arg (unidentified proteinase) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NID:g818902; PIDN:AAA79684.1;
  not shown
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 60; DB 1; Pred. No. 0.035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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proteinase) #st
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0.049;
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                                                                         a tandem duplication
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                                                                            A; Molecule type: mRNA
A; Residues: 7-351,'V',353-384
                                                                                                                      A; Title: Identification of a novel human serpin gene; cloning A; Reference number: S66675; MUID:96013887; PMID:7589435 A; Accession: S66675
                                                                                                                                                                                                      R;Barnes, R.C.; Worrall, D. FEBS Lett. 373, 61-65, 1995
                                                                                                                                                                                                                                                   A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-390 <SCH>
A;Cross-references: EMBL:U19576; GB:U19569; NID:g852466
                                                                                                                                                                                                                                                                                                                                                       A; Reference number: I38200; MUID:95241462; A; Accession: I38202
  A; Gene: GDB: SCCA2;
                                                  A;Residues: 7-351,'V',353-384 <BAR>A;Cross-references: EMBL:X89015; NI
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Genetics:

PI11

D.M.

GDB:636556; OMIM:600518

NID: 9887464;

PIDN:CAA61420.1;

PID:9887465

sequencing

and

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C.Speciles: Homo sapiens (man)
C.Speciles: Homo sapiens (man)
C.Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #text_change 26-May-2000
C.Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #sequence_revision 23-Feb-1996
C.Date: 23-Feb-1996 #sequence_revision 23-Feb-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; MoLecule type: protein A; MoLecule type: protein A; Residues: 11-21; 231-237; 240-256; 303-325 <SUM2>
^^^mment: This antigen probably acts as a proteinase inhibitor to modulate the host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: EMBL:U19556; NID:g1276435; PID:g1052869
R;Suminami, Y.; Kishi, F.; Sekiguchi, K.; Kato, H.
Biochem. Biophys. Res. Commun. 181, 51-58, 1991
A;Title: Squamous cell carcinoma antigen is a new member of the A;Reference number: JT0966; MUID:92068241; PMID:1958219
A;Accession: JT0966
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Superfamily: antithrombin III C;Keywords: cysteine proteinase inhibitor; glycoprotein F;65,93,171,376/Binding site: carbohydrate (Asn) (coval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: mRNA
A; Residues: 1-350, 'G', 352-356, 'A', 358-390 <SUM1>
A; Cross-references: GB:S66896; NID:9239551; PIDN
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A; Introns: 55/3; 74/3; 117/3; 157/1; 204/3;
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A; Cross-references: GDB:625364; OMIM:600517
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A; Residues: 1-350, 'G', 352-390 <SIL>
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A; Residues: 1-117 <SCH2>
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A;Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                              N; Alternate names: proteinase inhibitor 11 (PII1); squamous cell carcinoma antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                      I38202
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Pred. No. 0.05
3; Mismatches
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R:Sprecher, C.A.; Morgenstern, K.A.; Mathewes, S.; Dahlen, J. Biol. Chem. 270, 29854-29861, 1995
A;Title: Molecular cloning, expression, and partial characta;Reference number: A59273; MUID:96102039; PMID:8530382
A;Accession: B59273
                                                                                                                                                                                                                                                                               C;Species: Homo sapiens (man)
C;Date: 02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change 02-Jun-2000
C;Accession: B59273
C;Accession: Solvanostorn value Matheway S: Dahlen, J.R.; Schrader,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status, F-1
A; Molecule type: mRNA
A; Residues: 1-374 <SPR>
A; Cross-references: GB:L40377; NID:gl160926;
A; Cross-reference: tissue type placenta;
A; Cross-references: GDB:5
A; Map position: 6p25-6p25
                                             A; Gene: GDB: PI9; CAP3
                                                                                A; Cross-references: GB:L40378; A; Experimental source: tissue
                                                                                                                           A;Status: preliminary; not compared with conceptual translation A;Molecule type: mRNA A;Residues: 1-376 <SPR>
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A;Map position: 18g2l.3-18g2l.3
C;Superfamily: antithrombin III
C;Keywords: proteinase inhibitor
F;339/Inhibitory site: Arg (unid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Sprecher, C.A.; Morgenstern, K.A.; Mathewes, S.; Dahlen, J.R.; Schrader, S.K.; Foster J. Biol. Chem. 270, 29854-29861, 1995
A;Title: Molecular cloning, expression, and partial characterization of two novel member A;Reference number: A59273; MUID:96102039; PMID:8530382
A;Accession: A59273
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A:Introns: 55/3; 74/3; 117/3; 157/1; 204/3; 256/3
A:Introns: 55/3; 74/3; 117/3; 157/1; 204/3; 256/3
C:Superfamily: antithrombin III
C:Keywords: glycoprotein; serine proteinase inhibitor
E:1-22/Domain: signal sequence #status predicted <SIG>
E:23-384/Product: leupin #status predicted <MAT>
E:65,93,170,376/Binding site: carbohydrate (Asn) (covalent) #status
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                                                                 ;Genetics:
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Similarity 68.88;
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                       GDB:599393;
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                                                                                  type placenta;
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                          OMIM: 601799
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Pred. No. 0.05;
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2; Mismatches
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                                                                                                                                                                                                              1 partial characterization PMID:8530382
                                                                                                        PIDN:AAC41940.1; PID:g1160929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIDN:AAC41939.1; PID:g1160927 note (vector lambda gt11); gene
                                                                                    note
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                                                                                  (vector lambda gtll); gene CAP2;
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                                                                                                                                                                                                                                                                           J.R.; Schrader, S.K.;
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C; Geneti
A; Gene:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R:Rasmussen, S.K.; Klausen, J.; Hejgaard, J.; Svenson, B.; Svendsen, Biochim. Biophys. Acta 1297, 127-130, 1996
A;Title: Primary structure of the plant serpin BS27 having the capaci A;Reference number: Z15515; MUID:97075187; PMID:8917613
A;Accession: T06183
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Kaneko, T.; Nakamura,
Nakazaki, N.; Shimpo, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change C;Accession: AH1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
AH1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: T06183
R; Rasmussen, S.K.;
Biochim. Biophys. A
                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:BA000019; PIDN:BAB72735.1; A;Experimental source: strain PCC 7120
                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-374 < KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Reference number: AB1807;
A;Accession: AH1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA Res. 8, 205-213, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Experimental source: cv. Bomi, C; Superfamily: antithrombin III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Residues: 1-397 <RAS>
A: Cross-references: EMBL: X95277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Hordeum vulgare (barley)
C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
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                                                                                                                                                 Query Match
Best Local :
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Best Local :
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                           3 IEVTEEGTEATAAT 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Y.; Wolk, C.P.; Kuritz, T.; S.; Sugimoto, M.; Takazawa, N
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                                                                                                                                                 68.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence of the Filamentous Nitrogen-fixing Cyanobacterium ; MUID:21595285; PMID:11759840
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328
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Pred. No.
                                                                                                                     Mismatches
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0.075;
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30-Jun-2002
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barley

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RESULT 15
A26423
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A;Gene: pazx
A;Introns: 136/3
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C;Date: 02-Dec-1993 #sequence_revision 12-Apr-1996 #text_change 16-Jul-1999
C;Accession: S29819; S74166; S25625
R;Rasmussen, S.K.
                                                                                                                                                                                                                                                                                                                                                                                                         C;Accession: A26423
R;H111, R.E.; Hastie, N.D.
Nature 326, 96-99, 1997
A;Title: Accelerated evolution in the reactive centre regions of serine protease inhibit A;Reference number: A26423; MUID:87144617; PMID:3493437
A;Accession: A26423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 serine proteinase inhibitor 2.1 - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 19-Nov-1988 *sequence_revision 12-Jul-1996 *text_change 12-Jul-1996
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A; Residues: 1-398 <-RAS>
A; Cross-references: EMBL:Z15116; NID:g19070; PIDN:CAA78822.1; PID:g19071
A; Experimental source: strain Villa x Ulla
R; Dahl, S.W.; Rasmussen, S.K.; Petersen, L.C.; Hejgaard, J.
FEBS Lett. 394, 165-168, 1996
A:Title: Inhibition of coagulation factors by recombinant barley serpin BSZx.
A; Reference number: S74166; MUID:97000013; PMID:8843156
A; Accession: S74166
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A;Title: A gene coding for a new plant serpin.
A;Reference number: S29819; MUID:93176798; PMID:8439552
A;Accession: S29819
                                                                                                                                á
                                                                                                                                                                                                                                                                                                                  A;Molecule type: mRNA
A;Residues: 1-213 <HIL>
A;Cross-references: GB;X13149
A;Note: the authors translated the codon CTG for residue 1 as Met, GTG for residue 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Superfamily: antithrombin III
Search completed: July 11, 2003, 12:00:36 Job time: 3.52827 secs
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Best Local Similarity
Matches 11; Conserv
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Best Local Similarity 68.8%;
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| 334 SFVEVNEEGTEAAART 349
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159 LDVAETGTEATAATG 173
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                                                                                                                                  3 IEVTEEGTEATAATG 17
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73.3%;
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Pred. No. 0.084;
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Pred. No. 0.11;
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is derived by analysis of the total score distribution.

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433.698 Million cell updates/sec
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SPB7_HUMAN
ID SPB7_HUMAN
AC 075635;
  15-JUN-2002 (Rel. 41, C
15-JUN-2002 (Rel. 41, L
15-JUN-2002 (Rel. 41, L
15-JUN-2002 (Rel. 41, L
Megsin (TP55) (Serpin B
SERPINB7.
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MEDLINE-97326116; PubMed-9182567;

MEDLINE-97326116; PubMed-9182567;

Tsujimoto M., Tsuruoka N., Ishida N., Kurihara T., Iwasa F.,

Tsujimoto M., Tsuruoka N., Ishida N., Katsuragi N., Adachi M.,

Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M.,

Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K.,

Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K.,

Nakanishi T., Nakaoto H., Teramura M., Mizoguchi H., Yamaguchi N.;

"Purification, cDNA cloning, and characterization of a new serpin with

megakaryocyte maturation activity.";

J., Biol. Chem. 272:15373-15380(1997).
                                                                       EMBL; D88575; BAA31232.1; -. EMBL; AF027866; AAC64506.1; HSSP; P05619; 1HLE.
                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                               SEQUENCE FROM N.A.
TISSUE-Mesangial cells;
MEDLINE-98376492; PubMed-9710452;
Miyata T., Nangaku M., Suzuki D.,
Okubo K., Kurokawa K.;
                                                                                                                                                                                                                                                                                                                                                                                                       J. Biol.
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
Pfam; PF00079; serpin; SMART; SM00093; SERPIN; PROSITE; PS00284; SERPII
                                     InterPro; IPR000215; Serpin
                                                 мім; 603357;
                                                              Genew; HGNC:13902;
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, Last sequence up
, Last annotation on B7).
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GDN_HUMAN
COTR_MOUSE
CPI6_RAT
ANT3_BOVIN
ANT3_HUMAN
ANT3_HUMAN
ANT3_HUGSE
ANT3_SHEEP
SPI1_COWPX
SPI1_VAWP
SERA_MANSE
SPI2_MOUSE
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SUMMARIES

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SB13_HUMAN
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ILEU_HUMAN
OVAY_CHICK
PT16_MOUSE
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112892 seqs, 41476328 residues

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ID SB11_H
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Q96P15; Q96P14; Q96P13;
15-JUN-2002 (Rel. 41, Cr
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                                                                                                                                                                                                                                                                                                                                           Serpin; S
ACT_SITE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Brain Res. Mol. Brain Res. 42:293-300(1996)
-I- FUNCTION: MAY BE INVOLVED IN THE REGULATION OF SERINE PRESENT IN THE BRAIN OR EXTRAVASATED FROM THE BLOOD.
-I- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nakaya N., Nishibori M., Kawabata M., Saeki K.; "Cloning of a serine proteinase inhibitor from bovine brain: expression in the brain and characterization of its target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (Bovine).
Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Ce
Bovidae; Bovinae; Bos.
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SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
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16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Hurpin (HaCaT UV-repressible serpin) (Protease inl
(Headpin) (Serpin B13).
SERPINB13 OR PI13.
HOMO sapiens (Human).
Eukaryotta, Metazoa; Chordata; Craniata; Vertebrati
Mammalia; Eutheria; Primates; Catarrhini; Hominid
"Cloning and characterization of hurpin (Protease skin specific, UV-repressible serine proteinase ir ovalbumin serpin family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Silverman G.A., Cataltepe S.;
"SERPPINBI1 is a novel ov-serpin with at least 3 alleles.";
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-!- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
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Homo sapiens (Human).

Homo sapiens (Human).

Chordata; Metazoa; Chordata; Metazoa; Primates;
                                                                 Abts H.F.,
Ruzicka T.;
                                                                                                    MEDLINE-99443898;
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15-JUN-2002 (Rel. 41,
Serpin B11.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ne protease inhibitor; Polymorphism.
357 358 REACTIVE BOND (BY 9
                                                                                                                                           N.A.
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                                                                                                      PubMed=10512713;
                                                                                                                                             (ISOFORM
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76.5%;
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Last annotation update)
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                                                                                   Α.
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                                                                                                                                                                                                                        Vertebrata;
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                                                                                   Koehrer K.,
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                                                                               Serpin; S
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between
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                                                                                                                                                                                           InterPro; IPR000240;
InterPro; IPR000215;
Pfam; PF00079; serpir
                                                                                                                                                                                                                                                                                                                                    between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Abts H.F., Welss T., S
Bird P.I., Ruzicka T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Placenta;
MEDLINE-21213570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Genomic cloning, mapping, structure and p
a serpin which is down-regulated in head a
Biochim. Biophys. Acta 1492:441-446(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Spring P., Nakashima T., Frederick M., Henderson Y., Clayman G.; "Identification and cDNA cloning of headpin, a novel differentially expressed serpin that maps to chromosome 18q.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Blochem. Biophys. Res. Commun. 264:299-304(1999).
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MEDLINE=99458661; PubMed=10527881;
                                                                                                                                                                                PRINTS;
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                                                                                                                                                                                                                                     Genew;
                                                                                                                                                                                                                                                                                                                            or send an email to license@isb-sib.ch).
                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration -
 334
                                                                                                                                                                         SM00093;
                                                                                                                                                       SM00093; SERPIN; 1.; pS00284; SERPIN
                                       l Similarity
13; Conserv
                                                                                                                                                                                                                                  HGNC:8944; SERPINB13
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 SFVAVTEEGTEAAAATG
           SYIEVTEEGTEATAATG
                                        Conservative
                                                                                      serpin;
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                                                 80.7%;
76.5%;
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                                                  Pred.
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les 2;
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                                                          Length 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Irving
                                                                               CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             analysis of HEADPIN,
cancer cells.";
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RESULT
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15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Placental thrombin inhibitor (Cytoplasmic antiproteinase) (CAP)
(Protease inhibitor 6) (PI-6).
SERPINB6 OR PIG OR PTI.
                                                              ACT_SITE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Placenta;
TISSUE-Placenta;
MEDLINE-94183847; PubMed-8136380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1.
                                                                                                                                                                         HSSP; P05120; 1BY7
Genew; HGNC:8950; 1
MIM; 173321; -.
                                                                                                                                                                                                              EMBL; BC001394; AAH01394.1;
PIR; S35750; S35750.
PIR; A48681; A48681.
                                                                                                                                                                                                                                                                                                entities requires a license agreement (Some or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                         -I- FUNCTION: Inhibits thrombin.
-I- SUBCELULAR LOCATION: Cytoplasmic.
-I- TISSUE SPECIFICITY: HIGHEST LEVELS IN SKELETAL MUSCLE. ALSO FO
IN PLACENTA, CARDIAC MUSCLE, LUNG, LIVER, KINNEY AND PANCREAS.
-I- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg R.;
Submitted (DEC-2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Complementary DNA cloning and kinetic chaintracellular serine proteinase inhibitor: trypsin and factor Xa as model proteinases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Morgenstern K.A., Sp
Ching A., Kisiel W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 serine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Coughlin P., Sun J., Cerruti L., Salem H.H., Bird I "Cloning and molecular characterization of a human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-94022386; PubMed-8415716;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTI6_HUMAN
                                                                                                       Serpin;
                                                                                                                    PROSITE;
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                                                                                                                                                           InterPro; IPR000215;
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                                                                                                                                                                                                                                                         222658; CAA80373.1; -. S69272; AAB30320.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e proteinase inhibitor.";
Natl. Acad. Sci. U.S.A. 90:9417-9421(1993).
                                                                                                       Serine protease inhibitor.
           Similarity
                                                                                                                        PS00284; SERPIN;
                                                362
376
Conservative
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362
42590: MW;
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           74.78;
                                                                                                                                                              Serpin.
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                                                              REACTIVE BOND.
E -> G (IN REF
S -> R (IN REF
           Score 62;
Pred. No.
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2B46A55F40C608C6
Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                376
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           .0045;
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                                                                                                                                                                                                                                   EMBL; M93056; -; NOT_ANNOTATED_CDS.
EMBL; AF053630; AAC31394.1; -.
EMBL; BC009015; AAH09015.1; -.
PIR; S27383; S27383.
                                                                                                                                                                                                                                                                                                                                                                           modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruce by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Microsequences of 145 proteins recorded in the two-dimensi protein database of normal human epidermal keratinocytes."; Electrophoresis 13:960-969(1992).
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01-APR 1993 (Rel. 25, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Leukocyte elastase inhibitor (LEI) (Monocyte/neutrophil elastase inhibitor) (M/NEI) (EI).
SERPINBI OR ELANH2 OR PI2.
                                                    InterPro; IPR000215; Sepfin; Ffam; PF00079; Serpin; SMART; SM00093; SERPIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -I- FUNCTION: REGULATES THE ACTIVITY OF THE NEUTROPHIL PROTEASES ELASTASE, CATHEPSIN G AND PROTEINASE-3.
-I- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-I- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
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Remold-0'Donnell E., Chin J., Alberts M.;
"Sequence and molecular characterization of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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P30740;
                                                                                                                                                        Aarhus/Ghent-2DPAGE; 4314;
Genew; HGNC:3311; SERPINB1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rasmussen H.H.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zeng W., Silverman G.A., Remold-O'Donnell E.;
"Structure and sequence of human M/NEI (monocyte/neutrophil elastase
inhibitor), an Ov-serpin family gene.";
Gene 213:179-187(1998).
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                           PROSITE;
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                                                                                                                                       130135; -
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                              PS00284; SERPIN;
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                                                                                                            IPR000215;
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protease inhibitor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sci. U.S.A. 89:5635-5639(1992).
                                                                                                      Serpin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Puype M., Gesser B., Celis J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           364-371
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                                                                                                                                                                                                                                                                                                                                                                                                      (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                     There are no rest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
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RESULT 8
PRTZ_HORVU
ID PRTZ_H
AC P06293
DT 01-JAN
DT 01-NOV

STANDARD;

PRT;

399

PRTZ_HORVU P06293; 01-JAN-1988 01-NOV-1991

(Rel. 06, Created)
(Rel. 20, Last sequence update)

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RESULT 7
OVAY_CA
ID V_CAY_CA
ID V_CAY_CA
AC P01014
AC P01014
DT 21.-JUL
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Best Local S
Matches 11
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Best Local
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21-JUL-1986
01-APR-1993
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SEQUENCE
                                                                                                                                                                          CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                 ACT_SITE CARBOHYD
                                                                                                                                                                                                                                                                                                           Pfam; I
SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                between the Swiss Institute of Bloinformat
the European Bioinformatics Institute. The
use by non-profit institutions as long
modified and this statement is not removed.
                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                              entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The ovalbumin gene gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heilig R., Muraskowsky R., Kloepfer C., "The ovalbumin gene family: complete sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE=83014329; PubMed=7122240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P01014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OVAY_CHICK
                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                       Serpin
                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                      PIR; A01244; DYCH.
                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; J00922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic Acids Res. 10:4363-4382(1982).
-!- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Archosauria; Aves;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota;
                                                                                                                                                                                                                                                                                                                                                     interPro;
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  332
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                                                                                                                                                                                                                                                                                                         PF00079; serpin; 1.; SM00093; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                 P01012;
                                    2 YIEVTEEGTEATAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 SYIEVTEEGTEATAAT 16
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12; Conser
                                                                                              Similarity
  FMEVNEEGTEATGSTG
                                                                                                                                                                                                                                                                                           PS00284;
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IPR000215; Serpin
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379 1
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                                                                                                                                                      388
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(Rel. 01, Last sequence update)
(Rel. 25, Last annotation updat
                                                                                                                                                                        353
95
215
293
312
                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                            AAA68882.1;
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                                                                                                                                                                                                                                                                                           SERPIN;
                                                                                                                                                    354 R
95 N
215 N
293 N
312 N
43772 MW;
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42741 MW;
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                                                                                            72.3%;
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75.0%;
                                      17
347
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                                                                                                                                                                      REACTIVE BOND HOMOLOG.
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
N-LINKED (GLCNAC...)
                                                                          Score 60; DB
Pred. No. 0.01
3; Mismatches
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REACTIVE BOND (BY SIMILARITY);
BAAE08DFCBCD8CD3 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                      2AF17BF715D7F461
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0.0046;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      There are no rest
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                                                                                              .01;
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                                                                                                              Length 388;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 379
                                                                                                                                                        CRC64;
                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             structure
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                                                                                                                                                                      (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        restrictions
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                                                                            Gaps
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                                                                                             Query Match
Best Local S
Matches 12
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HSSP: PO1000,
InterPro; IPR00021,,
InterPro; IPR00079; serpin; 1.
SMART: SM00093; SERPIN; 1.
TONSITE: PS00284; SERPIN; 1.
TONSITE: PS00284; SERPIN; Storage; Serpin; Serpi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 360-384 FROM N.A.

RASHUSSER S.K., HOPP H.E., Brandt A., Svendsen I., Hejgaard J.;

"A CDNA clone for protein Z, a major barley endosperm albumin.";

Carlsberg Res. Commun. 49:385-390(1984).

"I- FUNCTION: A MAJOR COMPONENT OF THE ENDOSPERM ALBUMIN, THIS PROTEIN ACTS AS A STORAGE PROTEIN DURING GRAIN FILLING, CONTRIBUTING A SUBSTANTIAL PART OF THE GRAIN'S LYSINE. MAY HAVE AN INHIBITORY FUNCTION DURING FILLING OR GENAINATION.

"I-TISSUE SPECIFICITY: IS ACCUMULATED AND STORED IN THE ENDOSPERM, WHERE IT EXISTS IN A FREE AND A BOUND FORM.

"I-DEVELOPMENTAL STAGE: SYNTHESIZED 10-25 DAYS AFTER FERTILIZATION
                                                                                                                                                                                                 ACT_SITE
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-cv. Carlsberg II; TISSUE-Grain; Hejdgard J., Rasmussen S.K., Brandt A., Svendsen I.; **Sequence homology between barley endosperm protein inhibitors of the alpha-1-antitrypsin family.**; FEBS Lett. 180:89-94(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
Eur.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X51726; CAA36015.1; -. EMBL; X05902; CAA29331.1; -. EMBL; M35065; AAA32971.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A., AND PARTIAL SEQUENCE. STRAIN-cv. Carlsberg II; TISSUE-Grain; MEDLINE-91099324; PubMed-2269280;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hordeum vulgare (Barley).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; A01252; DXBHZ.
PIR; S13822; S13822.
HSSP; P01008; 1ATH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "A plant serpin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Brandt A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LILIES requires a license agreement (See http://www.isb-sib-send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (DEVELOPING ENDOSPERM).
INDUCTION: ITS EXPRESSION IS REGULATED BY ALLELES LYS1 AND LYS3A.
MISCELLANEOUS: THERE SEEM TO BE TWO Z PROT CHROMOSOME 4) AND Z7 (FROM CHROMOSOME 7).
SIMILARITY: BELONGS TO THE SERPIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dt A., Svendsen I., Hejgaard J.;
lant serpin gene. Structure, organization
encoding barley protein Z4.";
J. Biochem. 194:499-505(1990).
                                              بيو
                                                                                               Similarity
12; Conser
                         | SYIEVTEEGTEATAAT 16
                                                                                                                                                                                                 357
                                                                                             Conservative
                                                                                                                                                                                                 ₹
                                                                                                                                                                                                 357
43276 MW;
                                                                                                                    72.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        endosperm albumin).
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                                                                                                                                                                                            Storage protein; multigene family.
SIGNAL FOR TARGETING PROTEIN
THE ER LUMEN (POTENTIAL).
REACTIVE BOND (POTENTIAL).
276 MW; 023B8E52475ABA56 CRC64;
350
                                                                                               <u>ب</u>
                                                                                                                      Score 60; DB 1;
Pred. No. 0.011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND PARTIAL
                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROTEINS:
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                                                                                               <u>ب</u>
                                                                                                                                                Length 399
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 expression
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24
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                                                                                                                                                                                                                                                                          Z4 INTO
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RESULT 9
ILEU_PIG
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                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
PTI6_MOUSE
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Best Local S
Matches 11
                                                                                                                                                                                                                                                                                                                                                                 DISULFID ACT_SITE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U1-OCT-1993 (Rel. 27, Created)
01-OCT-1993 (Rel. 27, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Leukocyte elastase inhibitor (LEI) (Leucocyte inhibitor) (LNPI).
                             Sun J., Rose J.B., Bird P.;
"Gene structure, chromosomal localization, and murine homologue of human proteinase inhibitor divergence of PI-6 from the ovalbumin serpins."
J. Biol. Chem. 270:16089-16096(1995).
                                                                                                                                                         15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Placental thrombin inhibitor (Protease inhibitor SERPINB6 OR SPI3.
                                                                                                                                                                                                                                                                                                                                                                                                                            HSSP; P05619; 1HLE.
InterPro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-BALB/c;
MEDLINE-95332310; PubMed-7608171;
                                                                                                                                 Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalia; Eutheria; R
SEQUENCE FROM
TISSUE-Breast
                                                                                                                                                                                                                     PTI6_MOUSE
Q60854;
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Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inhibitor) (LNPI).
SERPINB1 OR ELANH2.
                                                                                                                        NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                          Serpin;
                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=94039085; PubMed=7901009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-Leukocyte;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE.
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                                                                                                                                                                                                                                                                                                                                    Similarity
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343
378 AA;
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 tumor;
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344 R
42512 MW;
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Rodentia;
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REACTIVE BOND (BY SIM
; 3CA7C65F11E508CA CR
                                                                                                                                                                                                                                                                                                                                   Score 59; [Pred. No. 0.
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                                                                                                                                 Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                               PRT;
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Sus.
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCC1_HUMAN STANDARD; PRT; 390 AA. P29508; Q96J21; 01-APR-1993 (Rel. 25, Created) 15-JUN-2002 (Rel. 41; Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Squamous cell carcinoma antigen 1 (SCCA-1) (P. SERPINB3 OR SCCA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
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or send a
                     MEDLINE-95241462; PubMed-7724531; Schneider S.S., Schick C., Fish K.E., Miller E., Pena J.C., Tretter S.D., Hui S.M., Silverman G.A.; "A serine proteinase inhibitor locus at 18q21.3 contains a tandem duplication of the human squamous cell carcinoma antigen gene."; Proc. Natl. Acad. Sci. U.S.A. 92:3147-3151(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND PARTIAL S
MEDLINE-92068241; PubMed-1958219;
Suminami Y., Kishi F., Sekiguchi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HSSP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg R.;
Submitted (APR
                                                                                                                                                    Strausberg R.;
                                                                                                                                                                              TISSUE-Lung
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Squamous cell carcinoma antigen protease inhibitors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biochem. Biophys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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SUBCELLULAR LOCATION: Cytoplasmic.
SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #GI:103123; Serpinb6.
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11; Conserv
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E 343 344 REACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYIEVTEEGTEATAAT
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Pred. No.
EXPRESSION
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a new member of the
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CLOSELY RELATED TO CELLULAR
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SEQUENCE
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MEDLINE-95241462; PubMed=7724531; Schneider S.S., Schick C., Fish K.E., Miller E., Pena J.C., Schneider S.D., Hui S.M., Silverman G.A.; Tretter S.D., Hui S.M., Silverman G.A.; and the proteinase inhibitor locus at 18q21.3 contains a tandem duplication of the human squamous cell carcinoma antigen gene."; proc. Natl. Acad. Sci. U.S.A. 92:3147-3151(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1996 (Rel. 33, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Squamous cell carcinoma antigen 2 (SCCA-2) (Leupin).
                               Barnes R.C., Worrall D.M.;
"Identification of a novel
"Identification of a novel
                                                                                                    SEQUENCE FROM N.A.
MEDLINE=96013887; PubMed=7589435.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
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P48594;
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                         expression
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                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SERPINB4 OR SCCA2
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HSSP; P01008; 1ATH.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000215; Serpin.
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L; U19556; AAA897552.1; -.
L; U19558; AAA86317.1; -.
L; U19569; AAA86317.1; JOINED.
L; U19560; AAA86317.1; JOINED.
L; U19562; AAA86317.1; JOINED.
L; U19563; AAA86317.1; JOINED.
L; U19567; AAA86317.1; JOINED.
L; U19567; AAA86317.1; JOINED.
L; U19569; AAA86316.1; -.
L; U19569; AAA86316.1; JOINED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                w; HGNC:10569; SERPINB3.
600517; -.
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of leupin.";
373:61-65(1995).
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390 AA;
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T -> A (IN REF. 1).
; E5F27F986C752CFA CRC64;
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0.015;
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                                                                                                                                                                                                                                                                                                                                                                                          SPB8_HUMAN
P50452;
01-OCT-1996
01-OCT-1996
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SEQUENCE FROM N.A.
MEDLINE-21167379; PubMed-11267667;
Schoom(va H., Asano Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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-I- FUNCTION: MAY ACT AS A PROTEASE INHIBITOR TO MODULATE THE HOST IMMUNE RESPONSE AGAINST TUMOR CELLS.
-I- SUBCELLULAR LOCATION: CYTOPLASMIC.
-I- TISSUE SPECIFICITY: SQUAMOUS CELLS.
-I- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
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SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; C
Mammalia; Eutheria; F
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                                                                                                                                                                                                                                                                                                     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Cytoplasmic antiproteinase 2 (CAP2) (CAP-2) (Protease
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    SEQUENCE FROM N.A
                                                                        CBI_TaxID-9606
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E 354 355 REACT
E 390 AA; 44854 MW; 04E
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Primates;
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; 04E213CD892587D5 CRC64;
                                                                                                                Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
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RESULT 14
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P50453;
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Serpin; Serine protease inhibitor.
Serpin; Serine protease inhibitor.
SERVEL 339 340 REACTIVE BOND (BY SIMILARITY).
ACT_SITE 339 340 REBS5A033519AC60E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pfam; pf00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
pROSITE; pS00284; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Cytoplasmic antiproteinase 3 (CAP3) (CAP-3) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sprecher C.A., Morgenstern K.A., M
Schrader S.K., Foster D.C., Kisiel
"Molecular cloning, expression, and
                                                                                                                                                   MEDLINE=96102039; PubMed=8530382; Sprecher C.A., Morgenstern K.A., Mathewes S., Dahlen J.R., Schrader S.K., Foster D.C., Kisiel W.; Molecular cloning, expression, and partial characterization novel members of the ovalbumin family of serine proteinase inhibitors.";
                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genew; HGNC:8952;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -1- SUBCELLULAR LOCATION: Cytoplasmic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J. Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Molecular cloning, expression, and partial characterization novel members of the ovalbumin family of serine proteinase
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"A cytosolic granzyme B inhibitor related regulator cytokine response modifier A is lymphocytes.";
                                           Sun J., Bird C.H., Sutton V., McDonald L., Trapani J.A., Bird P.I.;
                                                                          TISSUE-Placenta, and Bone marrow; meDLINE-97066975; PubMed-8910377;
                                                                                                                                                                                                                                             TISSUE-Placenta;
                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                  SERPINB9 OR PI9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inhibitors.";
J. Biol. Chem. 270:29854-29861(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=96102039; PubMed=8530382;
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                                                                                                         SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                 Serpin B9).
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                                                                                                                                       Chem. 270:29854-29861(1995).
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                                                                                                         N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
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                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
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73.38;
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Pred. No.
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0.022;
               to the viral apoptotic present in cytotoxic
                                                              Coughlin P.B.,
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Best Local :
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                                                                      "Neuroserpin is expressed in the pituitary and adrenal glands and induces the extension of neurite-like processes in AtT-20 cells."; Biochem. J. 345:595-601(2000).

-i- FUNCTION: SERINE PROTEASE INHIBITOR THAT INHIBITS PLASMINOGEN ACTIVATORS AND PLASMIN BUT NOT THROMBIN. MAY BE INVOLVED IN THE FORMATION OR REORGANIZATION OF SYMAPTIC CONNECTIONS AS WELL AS FOR SYMAPTIC PLASTICITY IN THE ADDLT NERVOUS SYSTEM. MAY PROTECT NEURONS FROM CELL DAMAGE BY TISSUE-TYPE PLASMINOGEN ACTIVATOR (BY
    This
                                                                                                                                                                                                                             TISSUE-Pituitary; MEDLINE-20115094;
                                                                                                                                                                                                                                                                                                                                               Q9JLD1; Q9JLD1;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Neuroserpin precursor (Protease inhibitor 17).
SERPINII OR PI12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                    Birch N.P.;
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Serpin; Serine protease inhibitor.
SET_SITE 340 341
ACT_SITE 340 341
ACT_SITE 340 341
ACT_SITE 350 ACT_SITE
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-I- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                         NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases
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[3]
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                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus (Rat).
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                                                                                                                                                                                                                                                                                                                                                                                                                                               VEUS_RAT
                                                                                                                                                                                                                                                             EQUENCE FROM N.A.
                          similarity).
SUBCELLULAR LOCATION: Secreted (By similarity).
SIMILARITY: BELONGS TO THE SERPIN FAMILY.
    SWISS-PROT
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                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
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   entry
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Pred. No. 0.
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; ECBA80869B939753 CRC64;
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0.022;
produced
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Best Local
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EMBL; AF193015
HSSP; P05120;
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ACT_SITE
CARBOHYD
                                                                                                                                                                                 Serpin;
                                                                                                               CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                                        entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
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1; SM00093; SERPIN; 1.
ITE; PS00284; SERPIN; 1
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340 SFIEVNEEGSEAAVASG
                                                                                                                                                                                                                                                               AF193014; AAF70386.1; -. AF193015; AAF70387.1; -.
                      1 SYIEVTEEGTEATAATG
                                             11;
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                                             Conservative
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362
157
157
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177
                                                                                                  10 protease inhibitor; 0 1 16 POTENTI 1 16 POTENTI 1 17 410 NEUROSE 157 N-LINKE 157 157 N-LINKE 151 321 N-LINKE 152 1 321 N-LINKE 152 1 2 L -> M
12 12 12 L -> M
177 177 H -> Q
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                                                                                         AA;
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64.7%;
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  356
                                                      Score 57;
Pred. No.
                                                                                                  L -> M (IN REF. 1; AAF70387).
H -> Q (IN REF. 1; AAF70387).
                                                                                                                        NEUROSERPIN.
REACTIVE BOND (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                  POTENTIAL
                                                                                         99008624B3A366D8
                                             Mismatches
                                                                                                                                                                                           Glycoprotein;
                                                       0.035;
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                                                                Length 410
                                                                                         CRC64;
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Search completed: July 11, 2003, 11:55:15 Job time: 2.62578 secs

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H.

Q920j5 rattus drosophila

norv

O9bsm3 homo sapien
Q9xe17 avena fatua
Q9v313 drosophila
Q9v313 drosophila
Q0v313 drosophila
Q008804 mus musculu
Q8vhp7 mus musculu
Q9v4w6 oryza sativ
Q9ngs0 bombyx mori
Q9d637 mus musculu
Q8wsx9 anopheles g
Q40076 hordeum vul
Q9byf8 homo sapien
Q9byf8 homo sapien
Q9byf7 homo sapien
Q9byf8 homo sapien

O8yyr8 anabaena sp Q40066 hordeum vul Q9gma6 sus scrofa Q9wttl cavia porce

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Q9die7 mus musculu Q43492 hordeum vul Q9gma9 sus scrofa Q9nh65 trichinella

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1 SYIEVTEEGTEATA
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Q9DHG4
                                   Query Match
Best Local Similarity
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Q9DHG4;
01-MAR-2001
                                  Serpin.
SEQUENCE
                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE-21176366; PubMed-11277691;

Lee H.J., Essani K., Smith G.L.;

"The genome sequence of Yaba-like disease virus,

Virology 281:170-192(2001).
                                                                                                                                                                                                                                                                                                                                                                     01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2001 (TrEMBLrel. 16, 01-JUN-2002 (TrEMBLrel. 21,
                                                                                                    Thesis (2000), Sir William Dunn School of Pathology, University | - SIMILARITY BELOWGS TO THE SERPIN FAMILY.

EMBL, AJ293568; CAC21387.1; -.

HSSP, P05120; 1BY7.
                                                                                                                                                                                                                                                                                                              149R.
Yaba-like disease virus
Viruses; dsDNA viruses,
Yatapoxvirus
                                                                    InterPro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
Lee H.J.;
                                                         PROSITE;
                                                                                                                                                                                                                                                      Submitted (JUL-2000) to
                                                                                                                                                                                                                                                                                                  NCBI_TaxID=132475;
                                                                                                                                                                                                                                                                                                                                                          149R protein.
                                                                                                                                                 Lee H.J.;
                                                                                                                                                             EQUENCE FROM N.A.
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Q9V3L3
L 008804
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Q9GMA6
Q9WTT1
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Q9NH65
Q8YYR8
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Q40076
Q9BYF8
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Last sequence update)
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Q94DW6
 Score 72; DB 12;
Pred. No. 0.00075;
                                  D7FD004191B3C19F CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                    334
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          Length 334;
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RESULT
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Blake J., Boffelli D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Suzuki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Sato K., Schoenbach C., Seya T., Shibata Y., Kohtsuki S.,
RA Hayashizaki Y.,
                                                                                                                     Query Match
Best Local
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01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                      SMART; SM00093; SERPIN; 1.

PROSITE; PS00284; SERPIN; UNKNOWN_1.

SEQUENCE 380 AA; 43050 MW; C9240272BCFB9CF4 CRC64;
                                                                                                                                                                                                                                                                mesangioproliferative nephritis.";
Kidney Int. 60:641-652(2001).
Kidney Int. 60:641-651(2001).
                                                                                                                                                                                                                                                                                                       Nangaku M., Miyata T., Suzuki D., Umezono T., Hashimoto
Yagi M., Nagano N., Inagi R., Kurokawa K.;
"Cloning of rodent megsin revealed its up-regulation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-SKIN;
MEDLINE-21085660; PubMed-11217851;
                                                                                                                                                                                                                                                                                                                                               MEDLINE=21368006; PubMed=11473647;
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                       Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                   "Functional annotation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa;
Mammalia; Eutheria;
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SERPINB7 OR 4631416M05RIK.
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                                                                                                                                                                                                                [nterPro;
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MGI:2151053; Serpinb7.
rPro; IPR000215; Serpin.
                                                    325
                                                                                                                                                                                                                                                    y Int. 60:641-652(2001)
AK014524; BAB29410.1;
AF105328; AAL16768.1;
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                                                                                                                                                                                               PF00079; serpin; 1.
                                                                                                        14;
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                                                                                                                     Similarity
                                                   SFIEVSEEGTEATAAT 340
                                                                             SYIEVTEEGTEATAAT
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Rodentia;
                                                                                                                  83.1%;
87.5%;
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                                                                                                                  Score 69; 1
Pred. No. 0
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                                                                                                       Mismatches
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0.0027;
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                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                              SEQUENCE FROM
                                                                                        NCBI_TaxID=10090;
                                                                                                                                            2310046M08RIK.
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ACC CCC CRAP
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
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RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
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RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
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RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Furuno M., Carninci P., de Bonaldo M.F.,
RA Susuki K., Okido T., Furuno M., Carninci P., de Bonaldo M.F.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
Hayashizaki Y...
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01-JUN-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
2310046M0RRik protein.
       Strausberg R.;
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ
-!- SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; BC010313; AAH10313.1; -.
                                                                                                                                                                                                                                                                                    01-DEC-2001 (TrEMBLrel. 19, 01-DEC-2001 (TrEMBLrel. 19, 01-JUN-2002 (TrEMBLrel. 21, RIKEN CDNA 2310046M08 gene.
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"Functional annotation of a full-length mouse cDNA collection.";
Nature 409:685-690(2001).
EMBL; AK009855; BAB26546.1; -.
EMBL; AK009003; BAB26017.1; -.
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STRAIN-C57BL/6J; TISSUE-TONGUE;
MEDLINE-21085660; PubMed-11217851;
                                                                                                                                                                                                                                         Mus musculus (Mouse)
MGI:1914207;
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P0514207; 2310046M08Rik.
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43482 MW;
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Rodentia;
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Rodentia;
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Last annotation update)
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Pred. No.
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0.0028;
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RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

RA AIZawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,

RA AIZawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

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RA AIZawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA AIZawa K., Izawa M., Nishi K., Kiyosawa H., Kasukawa T., Saito R.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Cassvant T.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Cassvant T.,

RA Fleischmann W., Gassterland T., Gissi C., King B., Kochiwa H.,

RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

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RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Robita K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Blake J., Bolit C., Fletcher C., Fujita M., Gariboldi M.,

RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,

RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,

RA Nordone P., Ring B., Ringwald M., Washima Y., Storch K.-F.,

RA Nordone P., Ring B., Ringwald M., Washima Y., Storch K.-F.,

RA Nordone P., Ring B., Ringwald M., Washima Y., Storch K.-F.,

RA Nordone P., Ring B., Ringwald M., Hasegawa Y., Kawaji H., Kohtsuki S.,

RA Nyushaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
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01-JUN-2001
01-JUN-2001
01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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-- SIMILARITY: BELONGS TO THE

EMBL; AK008814; BAB25964.1; --

HSSP: P05619; 1HLE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:1913472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID-10090;
                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR000215;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Functional annotation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  PF00079; serpin; 1. ; SM00093; SERPIN; 1.
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                                                                                                                                                                                                                                        Similarity 76.1
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                                                                                                                         SFVEVNEEGTEAAAATG
                                                                                                                                                                          SYIEVTEEGTEATAATG
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76.5%;
                                                                                                                                                                                                                                                                                                                                                              42580 MW;
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76.5%;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        full-length mouse cDNA collection.";
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Pred. No.
                                                                                                                                                                                                                                     Score 68; DB 11; Length 379; Pred. No. 0.004; indels
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SERPIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                              193728585077AB4B CRC64;
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Ouackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Ouackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baidarelli R., Barsh G.,
RA Blake J., Boifelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Hayashizaki Y.,
RA Lord Algebaa Y., Kawaji H., Kohtsuki S.,
RA Hayashizaki Y.,
RA Lord Algebaa Y., Kawaji H., Kohtsuki S.,
RA Hayashizaki Y.,
R
                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                            HSSP; 905619; 1HLE.

MGD; MGI:1913472; Serpinbla.

InterPro; IPR000215; Serpin.

Pfam; PF00079; Serpin; 1.

SMART; SM00093; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         McKeone R., Denny P., Cooley J., Benarafa C., Remold-O'Donnell Ragoussis J., Bird P.I.;

"Comparison of human chromosome 6p25 with murine chromosome 13 a greatly expanded Ov-serpin gene repertoire in the mouse.";

Genomics 0:0-0(2002).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
119005M04Rik protein (RIKEN cDNA 119005M04 gene)
SERPINB1A OR 1190005M04RIK OR SERPINB1.
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Q9D154;
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Kaiserman D., Knaggs S., Scarff K.L.,
McKeone R., Denny P., Cooley J., Benar
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -i - SIMILARITY: BELONGS TO THE EMBL; AKO03930; BAB23079.1; -. EMBL; BC0111140; AAH11140.1; -. EMBL; AF426024; AAL57486.1; -.
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Submitted (
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STRAIN=C57BL/6J; T
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                                                                                                                                                                                                                                                                               SEQUENCE
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   322
                                                                                                                                           l Similarity
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SFVEVNEEGTEAAAATG
                                                                                                                                                                                                                                                                                                                                                PS00284; SERPIN;
                                                                   SYIEVTEEGTEATAATG
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                                                                                                                                                                                                                                                                               379
                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                            AA;
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76.5%;
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                                                                                                                                                                    Score 68; I
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                                                                                                                                           Mismatches
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arafa C.,
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                                                                                                                                           Indels
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RESULT Q9D1Q5

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RESULT 8
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ID Q9Z2
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DT 01-M
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
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RA Blake J., Boffelli D., Bojunga N., Carninci P.,
RA Blake J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Mang K.H., Weitz C., Whittaker C., Wilming L.,
RA Hayashizaki Y.;
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Best Local S
Matches 13
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01-mAY-1999 (TrEMBLrel. 1
01-mAY-1999 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel.)
01-DEC-2001 (TrEMBLrel.)
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Q9D1Q5;
01-JUN-2001
01-JUN-2001
SEQUENCE FROM N.A.
MEDLINE-99047536; PubMed-9828132;
MEDLINE-99047536; PubMed-9828132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Functional annotation of a full-length mouse Nature 409:685-690(2001).
-i-SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; AK003220; BAB22650.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-C57BL/6J; TISSUE-EMBRYO;
MEDLINE-21085660; PubMed-11217851;
MEDLINE-11085660; PubMed-11217851;
MEDLINE-1108560; PubMed-11217851;
MEDLINE-2108560; PubMed-11217851;
MEDLINE-21085600; PubMed-11217851;
MEDLINE-210856000; PubMed-112178
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01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
18 days embryo cDNA, RIKEN full-length enriched library,
clone:1110001H02, full insert sequence.
                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                     SCCA2
                                                                                                                                                                                                                                                                                                                                                                    Q9Z2G2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCCA2
                                                                                                                                                                                        Mus musculus (Mouse).
                                                                                                                                                                                                                                        Squamous cell carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00284; SERPIN; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=10090
                                                                                                            NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; p05120; 1BY7.
MGI:1277952; Scca2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SFVEVNEEGTEAAAATG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IPR000215; Serpin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              s (Mouse).
Metazoa; Chordata; C
Metazoa; Rodentia; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      387
                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              serpin; 1. ; SERPIN; 1.
                                                                                                                                      Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44558 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       81.9%;
76.5%;
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19, Last
antigen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                346
                                                                                                                                                                                                                                        Last sequence up 
Last annotation 
igen 2.
                                                                                                                                                                                                                                                                                                                  Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 68; DB
Pred. No. 0.00
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                    Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AE25C02520F3B194 CRC64;
       c:
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          Massa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 11;
0.0041;
                                                                                                                                                                                                                                                                                                                                                                    AA
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                                                                                                                                                                                                                                                                update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 387;
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                                                                                                                                    Euteleostomi;
; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
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Best Local S
Matches 13
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Q8WSY0;
01-MAR-2002
01-MAR-2002
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                          Q9NFT6;
Q9NFT6;
Q9NFT6;
01-OCT-2000
01-OCT-2000
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Serpin.
SEQUENCE
                                                                                                                                                                                                                   "Serine protease inhibitors of Anopheles gambiae.";
Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ271352; CAB69784.1;
HSSP; P0100B; IATH.
                                                                                                                                                                                              Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1
                                                                                                                                                                                                                                                                                                                                    Putative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1.
Eukaryota;
        Anopheles
                                                                                                                                                                       SEQUENCE
                                                                                                                                                                               Protease
                                                                                                                                                                                                               InterPro;
                                                                                                                                                                                                                                                      Danielli A., Kafatos
                                                                                                                                                                                                                                                            STRAIN-4A R/R;
                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                             Anopheles
                                                                                                                                                                                                                                                                                                    Pterygota;
                                                                                                                                                                                                                                                                                                             Eukaryota;
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13; Conser
                                                                                                                                               Similarity
                                                                                                                                                                                     PS00284;
                                                                                                        AFIEVNEEGTEAAAATG
                                                                                                                                                                                                                                                                                                                                    serine
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                                                                                                                                                                                                                                                                                                                                                                                                                    SFVEVNEEGTEAAAATG
                                                                                                                                                                                                                                                                                                   gambiae (African malaria mosquito).
; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
; Neoptera; Endopterygota; Diptera; Nematocera; Culi
        gambiae
                                                                                                                                                                                                             IPR000215; Serpin.
Metazoa;
                                                                                                                                                                      379
                               (TrEMBLrel.) (TrEMBLrel.)
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                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                          (TrEMBLrel.
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                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
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                                                                                                                                                                      AA;
(African malaria mosquito)
; Arthropoda; Tracheata; H
                                                                                                                                                                                      SERPIN; UNKNOWN_1.
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                                                                                                                                              79.5%;
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. 15, Last sec
. 21, Last and
se inhibitor.
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Last annotation updat
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                                                                                                                                               Score 66;
Pred. No.
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Pred.
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                                                                                                                                        Mismatches
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Hexapoda;
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                                                                                                                                                      Length 379
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RESULT Q8WSX8
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DT 0:
DT 0:
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GN S
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
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                                                                OBWSXB, PRELIMINARY;
OBWSXB,
O1-MAR-2002 (TrEMBLrel. 2
O1-MAR-2002 (TrEMBLrel. 2
O1-JUN-2002 (TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPRUUUZIJ, ....
Pfam: PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSTTE; PS00284; SERPIN; UNKNOWN 1.
PROSTTE; PS00284; SERPIN; UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q9NFT5;
                             Serpin.
SPI21F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Danielli A., Kafatos F.C.;
"Serine protease inhibitors
submitted (JAN-2000) to the
EMBL; AJ271353; CAB69785.1;
HSSP; P01008; 1ATH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anopheles gambiae (African malaria mosquito).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Putative serine protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Danielli A., Loukeris T.G., Kafatos F.C.;
"Isolation and characterisation of four alternatively spliced serpin
variants in the mosquito Anopheles gambiae.";
Submitted (NOY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL: AJ420785; CAD12781.1;
-.
InterPro; IPR000215; Serpin.
  Anopheles gambiae (African malaria mosquito)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nterPro;
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                                                                                                                                                                                                                                                                                            323
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                                                                                                                                                                                                                                                                                                                                                                                      13; Conserv
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                                                                                                                                                                                                                                                                                            AFIEVNEEGTEAAAATG
                                                                                                                                                                                                                                                                                                                                      SYIEVTEEGTEATAATG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00284;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SYIEVTEEGTEATAATG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R/R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IPR000215; Serpin.
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illarity 76.5%;
Conservative
                                                                                                                                                                       PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SERPIN; UNKNOWN_1.
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                                                                        20,
                                                                                                                                                                                                                                                                                            339
                                                                        Last
Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of Anopheles gambiae.";
EMBL/GenBank/DDBJ databases.
                                                                                                                       Created)
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Pred. No.
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2; Mismatches
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RESULT 13
Q917G5
ID Q917G
AC Q917G
DT Q1-M2
DT Q
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Best Local S
Matches 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      323
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Danielli A., Loukeris T.G., Kafatos F.C.;
Danielli A., Loukeris T.G., Kafatos F.C.;
"Isolation and characterisation of four alternatively spliced variants in the mosquito Anopheles gambiae.";
Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ420785; CAD12783.1; -.
Interpro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; UNKNOWN_1.
SEQUENCE 380 AA; 42582 MW; C3FE91D55DF2450B CRC64;
                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=7165,
                                                                                                                                                                                                                                                                                                                                                                                                      Pterygota; Neoptera;
Anopheles.
                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                        l Similarity
13; Conser
                    SYIEVTEEGTEATAATG
AFIEVNEEGTEAAAATG
                                                                        Conservative
                                                                                            79.5%;
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339
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                                                                                          Score 66;
Pred. No.
                                                                          Mismatches
                                                      DB ;
0.0087;
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                                                                                                            Length 380
                                                                          Indels
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                                                                        Gaps
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01-MAR-2001 01-MAR-2001 01-JUN-2002 Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Sp4 protein. SP4 OR CG9453. Ephydroidea; (TrEMBLrel. 16, (TrEMBLrel. 16, (TrEMBLrel. 21, PRELIMINARY; Drosophilidae; Drosophila. Created) Last sequence update)
Last annotation updat 392 A

STRAIN-BERKELEY; MEDLINE-20196006; SEQUENCE FROM N.A. PubMed=10731132;

RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Barlow R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Barlow R.M., Dayle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Abrill J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beesson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Beesson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brockstein P., Brottler P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Cherry J.M., Cawley S., Dahlke C., Days A.D., Dew I., Dieves P.,
RA Cherry J.M., Cawley S., Dahlke C., Days A.D., Dew I., Dieves P.,
RA Godson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Godson K., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Helman T.J., Hernandez J.R., Houck J.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., J., Li Z., Liang Y., Lin X.,
RA Mount S.M., Molson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.

K.A.,

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RESULT

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     RESULT 15
Q8TOM5
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AC Q8TOM
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Q8TOM5;
01-JUN-2002
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EMBL; AE003790; AAG22209.1; -. ENDBEC: ETECTOROGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation updato)
Serine protease inhibitor (Serpin-4).
Sp4 OR CG9453.
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                           Prom; Pro0079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00014; ER_TARGET; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
Han J.H., Zhang H., Min G.S., Hashimoto C.;
Han J.H., Zhang H., Min G.S., Hashimoto C.;
"Identification of functional Drosophila serpins.";
submitted (DEC-1999) to the EMBL/GenBank/DDBJ datab-
'- SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; AJ251747; CAB63099.1; --
EMBL; AJ251747; CAB63099.1; --
EMBL; AJ251747; CAB63099.1; --
HSSP; P01008; 1ATH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FlyBase; FBgn0028985; sp4.
InterPro; IPR000886; ER_target.
InterPro; IPR000215; Serpin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00079; serpin; 1.

SMART; SM00093; SERPIN; 1.

SMART; SM00093; SERPIN; 1.

PROSITE; PS00014; ER TARGET; UNKNOWN 1.

PROSITE; PS00014; ER TARGET; UNKNOWN 1.

SEQUENCE 392 AA; 44127 MW; 5D221529C5E0822E CRC64;
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InterPro; IPR000886; ER_target.
InterPro; IPR000215; Serpin.
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13; Conserv
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13; Conser
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                                                                                                                                                                                                                                                                                                                                                                                          Serpin.
392 AA; 44133 MW;
(TrEMBLrel. 21,
                                                                                                                                                                                                                                                                                            Conservative
                                                      PRELIMINARY;
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76.5%;
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                                                                                                                                                                                                                                                                                                                    Score 66; DB 5;
Pred. No. 0.009;
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Pred. No. 0.009;
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Best Local S
Matches 13
                                                                                                         Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J., Champe M., Chavez C., Dorsett V., Farfan D., Frise E., George Gonzalez M., Guarin H., Li P., Liao G., Miranda A., Mungall C., Nunco J., Pacleb J., Paragas V., Park S., Phouanenavong S., Wa Yu C., Lewis S.E., Rubin G.M., Celniker S.; Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases. EMBL, AY069173; AAL39318 1. -
                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Pterygota; Neoptera; Ephydroidea; Drosoph;
                                                                                                                                                                                                                                                                                        Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
                                                                                                                                                                                                                                                                                                                                                 01-JUN-2002 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
GH21896p.
                                                                                                                                                                                                                      STRAIN-BERKELEY;
                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                  NCBI_TaxID=7227;
358
                           ۳
                                                      13;
                                                                   Similarity
AFIEVNEEGTEAAAATG
                          SYIEVTEEGTEATAATG
                                                      Conservative
                                                                                                                                                                                                                                                                                Drosophilidae;
                                                                 79.5%;
                                                                                                                                                                                                                                                                                                                                                               21, Last sequence update)
21, Last annotation update)
374
                          17
                                                                                                                                                                                                                                                                                Drosophila.
                                                    ۲;
                                                                 Score 66; DB 5;
Pred. No. 0.0096;
                                                    Mismatches
                                                    2
                                                                                Length 418;
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L C.J.,
Wan K.,
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arch completed: July 11, 2003, 11:58:57 b time : 10.422 secs

Ayarath Nypeptide,
Human protein sequ
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Human Protein sequ
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P. abyssi DNA PO
P. occultum DNA PO
P. occultum DNA PO
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P. occultum Na Po
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page 2

Fri Jul 11 15:11:04 2003

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RESULT 2
AAY08254
ID AAY0
XX AAY0
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Best Local S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      Human MDF can be isolated from a culture of human epidermoid carcinoma A431 cells in protein free medium. The MDF stimulates afferentiation of megakaryocytes from myeloid cells in the presence differentiation of megakaryocytes from myeloid cells in the useful of II-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number for treatment of diseases involving a decrease in the marrow for treatment of diseases involving a decrease in the marrow for treatment of diseases in charge in bone marrow for treatment of diseases in charge in the marrow for treatment of diseases. The most has mol.wt. 55-57kD by transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by space and exhibits an isoelectric point of 6.0-7.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New megakaryocyte differentiation factor - isolated from human epidermoid carcinoma cells, used to treat conditions involving a
                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     decrease in platelets
                                                                                                                                                                                                                                                                                                           AAY08254 standard; protein; 380 AA.
                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
y match
Local Similarity 100.0%;
les
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                                                                                                                                                                                                                                                                                           AAY08254;
                                                                                                                                                                                                                                     Megsin; mesangial cell; treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                               human; rat; murine.
                                                                                                                                                                                                                                                                                                                                                        289 QYLRALGLK 297
            7
                                                                                                                                                                                                                mo sapiens.
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                                                                     Matches
                                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                 380 AA;
                                            This invention describes proteins from human, rat and useful for the treatment and diagno.

cells, such as IgA nephropathy.

megsin
                                  Local
                                                                                                                      Claim 1; Page 6;
                                                                                                                                                  Megsin
                                                                                                                                                                     N-. 98WO-JP04269
          I Similarity 100.0%;
9; Conservative 0;
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pred. No. 1.1;
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Mismatches
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                   protein is expressed the invention are invention mesangial involving mesangial
                                            megsin nucleic acid and
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                                                                            Query Match
Best Local Similarity
Best Local 9; Conserva:
       RESULT 4
AAB83075
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                                                                                                                 Sequence
  AAB83075 standard;
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Indels

AAB83075;

Protein; 380 AA.

Conservative

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Mismatches

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                                                                                                   xx rhe present invention describes a method for evaluating renal function. CC The method comprises assaying megsin protein antibody for diagnosing: CC The method comprises assaying megsin protein antibody for diagnosing: CC The method comprises of a antimegain protein antibody at the particles; and CC renal function; and (2) a kit for detecting megsin protein entitled to solid magnetic particles; and CC renal function; and the comprise of the particles; and CC (a) direct or mile process is useful for evaluating renal function and CC (b) direct or mile process by assaying megsin protein in biological (c) a magnet. The process by assaying megsin protein the human megsin CC diagnosing renal disorders by assaying megsin protein the human megsin cc samples (preferably urine or blood). The process is reproducible and cc samples (preferably urine or blood) sequence represents the human megsin cc samples (preferably urine or blood). The process is reproducible and cc samples (preferably urine or blood) of the present invention cc gives accurate results. The present sequence represents the present in the present sequence represents the present in the present sequence represents the present in the present in the present sequence represents the present sequence represents the present in the present sequence represents the present sequence the pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Megsin; mesangium-predominant gene; serpin regulated; nephropathy; mesangium-predominant gene; renal function; renal disorder; rgh; immunoglobulin A; detection; renal runne.

Igh; immunoglobulin A; detection; urine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human megsin protein sequence SEQ ID NO:2.
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|289 QYLRALGLK 297
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28-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KURO/) KUROKAWA K.
(FUSO) FUSO PHARM IND LTD.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-611642/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Evaluating renal function comprises assaying megsin protein in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAA99294.
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99JP-0306623.
                                                                                 380 AA;
100.0%;
       Score 44; DB 21;
pred. No. 1.1;
                                                                                    Length 380;
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RESULT 5
AAR57111
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Best Local S
Matches 9
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EP583884-A
                                                                                             Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet;
                                                                                                                                 Human
                                                                                                                                                                                                  AAR57111 standard;
                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 4; Page 44-46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and screening of new treatments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-300136/31.
N-PSDB; AAF82438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Miyata
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human megsin protein
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                                Misc-difference
                                          Key
                                                                 Homo
                                                                                                                                                      16-AUG-1994
                                                                                                                                                                             AAR57111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse model for mesangial cell proliferative nephritis for development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                      Local Similarity
les 9; Conserv
                                                                 sapiens
                                                                                                                                                                                                                                                         289 QYLRALGLK 297
                                                                                                                                 megakaryocyte
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                                                                                                                                                                                                                                                                              QYLRALGLK 9
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                                                                                     transplantation;
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                                          Location/Qualifiers
                     /note-
                                                                                                                                                                                                  peptide;
                                                                                                                                 differentiation
                                                                                                                                                      entry)
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                     "not determined"
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                                                                                    cancer chemotherapy
                                                                                                                                                                                                                                                                                                                Score 44;
Pred. No.
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                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                factor peptide
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RESULT 6
AAY99661
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol. wt.
                                                                                                                                                                                Guanine nucleotide binding protein; GTPP-binding protein; G-proterns; GTPAs; Cell proliferation; GTPAs; GTPAse associated protein; GTPAP, Cell proliferation; autoimmune; inflammatory; immune system disorder; cancer; AIDS; acquired immune deficiency syndrome; asthma; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55\text{-}57\text{kD} by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                                                    acquired immune defi
arthritis; systemic
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04-MAR-1993;
            Modified-site
                                   Domain
                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                             Human GTPase associated protein-12.
                                                                                                                                                                                                                                                                    03-NOV-2000 (first entry)
                                                                                                                                                                                                                                                                                               AAY99661;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New megakaryocyte differentiation factor - isolated from human epidermoid carcinoma cells, used to treat conditions involving
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1994-058782/08
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(TSUJ/)
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                                                                                    Modified-site
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8; Conserv
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TSUJIMOTO M.
                                                                                                                                                                                                                                                                                                                      standard; Protein;
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M, Tsuruoka
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93JP-0067339
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                                                                                    /label=
57
            /label=
99
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96..110
                                                            /note= "Potential phosphorylation site" 67
/note= "Potential phosphorylation site"
                                                                                                                     Location/Qualifiers
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Yamaguchi N,
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Pred. No.
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                                             phosphorylation
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ches 0;
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Yamaichi K;
                                                                                                                                                                      psoriasis;
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23-NOV-1998;
04-FEB-1999;
06-APR-1999;
                                                                           Human cDNA libraries from various tissues were screened for GTPase associated proteins (GTPAP). The present sequence is human GTPAP-12 protein. This sequence was derived from a cDNA library of prostate tumour tissue removed from a 65 year old male.
                                         This protein is expressed in reproductive, haematopoietic/immune and gastrointestinal tissue. The GTPAP proteins may be used to define agonists and antagonists of GTPAP activity and to generate antibodies to GTPAP. This means the GTPAP proteins may be useful for treatment of
                                                                                                                                                      Human GTPase associated proteins, useful for diagnosing, preventing atherosclerosis, cancer, acquired
                                                                                                                                                                                                                       Yang
                                                                                                                                                                                                                               Hillman
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DB; AAA49182.
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Azimzai
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99US-0118610.
99US-0127990.
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684
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522
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467
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416
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331
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156
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285
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                                                                                                                            English.
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                                                                                                                                                     polynucleotides, and antibodies, and treating various diseases such immune deficiency syndrome (AIDS),
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prevention of diseases associated with GTPAP such as cell proliferation disorders, autoimmune disorders, inflammatory disorders, immune system disorders, cancer, AIDS, asthma, atherosclerosis, arthritis, systemic

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Sequence

213

erythematosus and psoriasis.

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RESULT 7
ABG06229
                                      polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques (II). (II) is useful for generating antibodies against it, detecting or guantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating condisorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in cidagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and condisorstic amino acid sequences. ABG00010-ABG30377 represent novel human condistication, but was obtained in electronic format directly from WIPO confirmation, but was obtained in electronic format directly from WIPO confirmation.
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                  diagnostics, forensics, responsible for genetic
                                                                                                                                                                                                                                                                                             The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chroma and gene mapping, and in recombinant production of (II). The
                                                                                                                                                                                                                                                                                                                                                                            Claim 20; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                         biodiversity
                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-639362/73.
N-PSDB; AAS70416.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel human diagnostic protein #6220
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABG06229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABG06229 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200175067-A2
                                ftp.wipo.int/pub/published_pct_sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          551 RYLRALGL 558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 QYLRALGL
:||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7;
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2000US-0649167
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                                                                                                                                                                                                                                                                                                                                                                            No 36588; 103pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    79.5%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tang
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 35;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 694;
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                                                                                                                                                                                                                                                                                                               chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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RESULT 9
AAW64160
ID AAW6
XX AAW6
AC AAW6
XX 19-J
DT 19-J
XX Resi
KW pest
KW crop
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AAY06788
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Best Local S
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Best Local
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                                                                                                                                                                                                                                                                                                                                            Matches
 Resistance gene;
pest resistance;
crop protection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                This represents a C. amalonatious maleate isomerase. Host cells transformed with a vector comprising the DNA are used for the recombinant expression of the protein. The maleate isomerases of the invention isolated from P. fluorescens and C. amalonaticus are useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Citrobacter amalonaticus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C. amalonaticus
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 6; Page 11-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New maleate isomerase useful for production of L-aspartic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-OCT-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L-aspartic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Maleate isomerase; recombinant; P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-JUN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY06788 standard; Protein;
                                                                                                                                               AAW64160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 producing L-aspartic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Komatsuzaki S,
                                                                       Lettuce resistance protein RLG2A.
                                                                                                            19-JUL-1999
                                                                                                                                                                                 AAW64160 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (JAPC ) NIPPON
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DB; AAX32470.
                                                                                                                                                                                                                                                                       228
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                                                                                                                                                                                                                                                                                                         1 QYLRALGLK 9
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                                                                                                                                                                                                                                                                                                                                            7; Conser
                                                                                                                                                                                                                                                                       QMLKALGLK 236
                                                                                                                                                                                                                                                                                                                                                                                                                  250
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                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                           (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mukouyama M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          maleate isomerase
RLG2A; RG2A; lettuce; disease resistance; virus; fungus; protozoon; bacterium; nema transgenic plant.
                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             77.38;
87.58;
                                                                                                                                                                                                                                                                                                                                                         75.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21pp; English.
                                                                                                                                                                               1365
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Pred. No. 61;
                                                                                                                                                                                                                                                                                                                                                         Score 33; DB 20;
Pred. No. 1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 61;
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     fluorescens; C. amalonaticus;
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                                                                                                                                                                                                                                                                                                                                                                           Length 250;
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                                                                                                                                                                                                                                                                                                                                          Indels
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                      nematode;
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                                                                                                                                                                                               RESULT 10
AAU95473
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   The present sequence represents lettuce RLG2A resistance protein, as deduced from the RLG2A gene (see ANV44199) isolated from lettuce cultivar Diana genomic DNA. RG (or RLG) families RG1-RG5 and RG7 have been identified, each RG family being defined as a group of polypeptide sequences that have at least 60% amino acid sequence identity. Individual members of an RG family typically map to the same genomic locus. RG nucleic acid sequences (see ANV44188-257) can be used to confer resistance in plants to a variety of pests, including viruses, fungi, nematodes, insects and bacteria. Sequences from within the RG genes can be used to fingerprint cultivars or germplasm for the presence of desired resistance genes. Antibodies to RG proteins (see ANW64150-98) are useful for detecting the type and amount of RG protein expressed in a plant
                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New resistance gene nucleic acids - useful to produce disease resistant plants, e.g. lettuce, Lactuca sativa, and to detect resistance genes, e.g. to fingerprint cultivars
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
 Lactuca sativa
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 37; Page 77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAV44199
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-JAN-1998;
                                      Plant; lettuce;
                                                                                                           02-JUL-2002
                                                                                                                                              AAU95473;
                                                                                                                                                                             AAU95473 standard; Protein; 1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-JUL-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lactuca sativa.
                                                                         Lettuce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                       31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B, Michelmore
                                                                                                                                                                                                                                                                                                     1 QYLRALGLK 9
                                                                       pest
                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                    QYMREMGIK
                                                                                                                                                                                                                                                                                                                                                                                                                1365
                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                       resistance
                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-0781734.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers 413
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1057
                                   resistance gene; plant downy mildew; RG; transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "encoded by NAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                183pp;
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                                                                                                                                                                                                                                                                                                                                                           75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "encoded by RAC'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "encoded by NAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "encoded
                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shen
                                                                                                                                                                                                                                                                                                                                                         Score 33; DB 19;
Pred. No. 6.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    by NTG
                                                                       RG2A #1
                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                         Length 1365;
                                                                                                                                                                                                                                                                                                                                          Indels.
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Gaps

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RESULT 11
AAW64176
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                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            encoding a polypeptide conferring resistance to plant downy mildew and hybridises to a fully defined sequence of 1323 amino acids as given in the specification, under a wash with 0.2 x SSC at 65plusoC. Also disclosed are other pest resistance genes and their protein products. The isolated nucleic acid molecule is used to confer resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to an isolated nucleic acid molecule comprises RG2B (resistance gene 2B) polynucleotide encoding a polypeptide conferring resistance to plant downy mildew, hybridises to a fully defined sequence of 15062 base pairs as given in the specification, a wash with 0.2 x SSC (standard sodium citrate) at 65plusoC. Also
WO9830083-A1
                                                                                                                                          Resistance gene; pest resistance;
                                     Misc-difference
                                                                                                                                                                                                                                                               AAW64176 standard; Protein; 1890 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to downy mildew in a plant. This comprises introducing into the plant an expression cassette comprising a promoter operably linked to an RG2B polynucleotide. The present sequence is a lettuce resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 included is a transgenic plant comprising a heterologous expression cassette containing a promoter operably linked to an RG2B polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Column 85-92; 209pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-314681/35.
N-PSDB; ABK67796.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Michelmore RW,
                                                               Misc-difference
                                                                                                      Lactuca
                                                                                                                                                                                   Lettuce resistance protein RG2A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein sequence (or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Isolated nucleic acid molecule, RG2B (resistance gene 2B)
polynucleotide, encodes polypeptide useful for conferring resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-JAN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                               protection;
                                                                                                                                                                                                                                                                                                                                  31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  downy mildew
                                                                                                      sativa
                                                                                                                                                                                                                                                                                                                                                                                    Similarity 55.
                                                                                                                                                                                                                                                                                                                                 QYMREMGIK 39
                                                                                                                                                                                                                                                                                                                                             QYLRALGLK 9
                                                                                                                                                                                                                                                                                                                                                                                                                                        1366
                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9705-0781734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0004838
                                   /note= "encoded by TAA" 1884
                                                               Location/Qualifiers 1497
                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shen
                                                                                                                            RLG2A; RG2A; lettuce; disease resistance;
virus; fungus; protozoon; bacterium; nematode;
transgenic plant.
                          /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KA,
                                                                                                                                                                                                                                                                                                                                                                                                75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                        "encoded by TAA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Meyers
                                                                                                                                                                                                                                                                                                                                                                                     ω,
                                                                                                                                                                                                                                                                                                                                                                                                Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               consensus
                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC;
                                                                                                                                                                                                                                                                                                                                                                              DB 23; Lc. 6.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence).
                                                                                                                                                                                                                                                                                                                                                                                                            Length 1366;
                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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AC XXX DET TO AC
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AAU95491
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                  Michelmore RW,
                                                                                                                                                                                                                 09-JAN-1998;
                                                                                                                                                                                                                                                                                                                            US6350933-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Plant; lettuce;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU95491;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU95491 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         have been identified, each RG family being defined as a group of polypeptide sequences that have at least 60% amino acid sequence identity. Individual members of an RG family typically map to the same genomic locus. RG nucleic acid sequences (see AAV44188-257) can be used to confer resistance in plants to a variety of pests, including viruses, fungi, nematodes, insects and bacteria. Sequences from within the RG genes can be used to fingerprint cultivars or germplasm for the presence of desired resistance genes. Antibodies to RG proteins (see AAW64150-99) are useful for detecting the type and amount of RG protein expressed in a plant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents lettuce RG2A resistance protein, as deduced from the RG2A gene (see AAV44231) isolated from lettuce cultivar Diana genomic DNA. RG (or RLG) familles RG1-RG5 and RG7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 37; Page 110; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                     (REGC ) UNIV CALIFORNIA
                                                                                                                                                              10-JAN-1997;
                                                                                                                                                                                                                                                                         26-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                  Lactuca sativa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lettuce pest resistance protein RG2A #3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New resistance gene nucleic acids - useful to produce disease resistant plants, e.g. lettuce, Lactuca sativa, and to detect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              resistant plants, e.g. resistance genes, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1998-398692/34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 QYLRALGLK 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QYMREMGIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1890 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                  Shen KA,
                                                                                                                                                              97US-0781734
                                                                                                                                                                                                                    98US-0004838
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                                                                                                                                                                                                                                                                                                                                                                                                                                     resistance gene; plant downy mildew;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein; 1890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75.0%;
55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 to fingerprint cultivars
                                                     Meyers BC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1890;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        RG;
                                                                                                                                                                                                                                                                                                                                                                                                                                        transgenic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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RESULT 13
ABB66978
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CC The invention relates to an isolated nucleic acid molecule comprises an CR RG2B (resistance gene 2B) polynucleotide encoding a polypeptide CC conferring resistance to plant downy mildew, hybridises to a fully CC defined sequence of 15062 base pairs as given in the specification, under CC a wash with 0.2 x SSC (standard sodium citrate) at 65plusoc. Also included is a transgenic plant comprising a heterologous expression CC cassette containing a promoter operably linked to an RG2B polynucleotide cnoding a polypeptide conferring resistance to plant downy mildew and CC hybridises to a fully defined sequence of 1323 amino acids as CC given in the specification, under a wash with 0.2 x SSC at 65plusoc.
CC Also disclosed are other pest resistance genes and their protein CC products. The isolated nucleic acid molecule is used to confer resistance CC to downy mildew in a plant. This comprises introducing into the plant CC an expression cassette comprising a promoter operably linked to an RG2B CC plynucleotide. The present sequence is a lettuce resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                               Drosophila melanogaster.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          polynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                              New isolated nucleic acid genes from Drosophila and
                                                                                                                              Venter
                                                                                                                                                     (PEKE )
                                                                                                                                                                                23-MAR-2000;
11-JUL-2000;
                                                                                                                                                                                                                      23-MAR-2001; 2001WO-US09231
                                                                                                                                                                                                                                                27-SEP-2001
                                                                                                                                                                                                                                                                        WO200171042-A2
                                                                                                                                                                                                                                                                                                                            pharmaceutical.
                                                                                                                                                                                                                                                                                                                                         Drosophila;
                                                                                                                                                                                                                                                                                                                                                                Drosophila melanogaster polypeptide SEQ
                                                                                                                                                                                                                                                                                                                                                                                           26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                     АВВ66978;
                                                                                                                                                                                                                                                                                                                                                                                                                                           ABB66978 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isolated nucleic acid molecule, RG2B (resistance gene 2B) polynucleotide, encodes polypeptide useful for conferring
                                    interactions
                                                                                      2001-656860/75
DB; ABL11081.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              downy mildew -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31 QYMREMGIK 39
                                                                                                                              űĊ,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence (or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
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                                                                                                                                                      CORP NY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1890 AA
                                                                                                                                                                                                                                                                                                                                        developmental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Column 209-220;
                                                                                                                            Adams
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                                                                                                                                                                                2000US-191637P.
2000US-0614150.
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                                                                                                                                                                                                                                                                                                                                                                                          entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein consensus sequence).
                                                                                                                            E
                                                                                                                              PWD,
                                                                                                                                                                                                                                                                                                                                        biology;
                                               detection reagent for detecting for elucidating cell signalling
                                                                                                                                                                                                                                                                                                                                                                                                                                               194
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••
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 33; Pred. No.
                                                                                                                            Myers
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                                                                                                                                                                                                                                                                                                                                        cell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 23;
9e+02;
                                                                                                                                                                                                                                                                                                                                        signalling;
                                                                                                                                                                                                                                                                                                                                                                ID NO 27726
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1890;
                                                                                                                                                                                                                                                                                                                                        insecticide;
                                               1000
and c
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                                               cell-cell
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Disclosure;

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Sequence

Listing;

Query Match Best Local Similarity

72 75

Score Pred.

832;

DB 22; 2e+02;

Length 281;

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RESULT 14
AAG70876
ID AAG70
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA sequences (ABL01840-ABL16175) and the encoded proteins
                                                                                                                                                         leading to programmed disorders, yeast and f certain diseases -
                                   The present invention provides the protein and coding sequences of a number of apoptosis associated proteins from the yeast Saccharomyces cerevisiae and the fungus Candida albicans. These can be used to identitreatments for fungal and yeast infections, for proliferative diseases and for apoptosis related diseases such as autoimmune diseases, ischaer and neurodegeneration. The present sequence is one of the C. albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C albicans apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequence data for this patent did not form specification, but was obtained in electronic i
                                                                                                                                Claim 24; Fig 2; 218pp; English.
                                                                                                                                                                                                                                                                               Contreras RH,
                                                                                                                                                                                                                                                                                                                                  01-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                           03-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                        11-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                 WO200102550-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                          Candida albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yeast; fungus; apoptosis; infection; proliferative disease; vaccine; autoimmune disease; ischaemia; neurodegeneration.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAG70876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG70876 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       at ftp.wipo.int/pub/published_pct_sequences.
Sequence
                        proteins
                                                                                                                                                                                                                            N-PSDB; AAH29912.
                                                                                                                                                                                                                                                                 Nelissen
                                                                                                                                                                                                                                                                                                         (JANC
                                                                                                                                                                                                  Yeast
                                                                                                                                                                                                                                       2001-367042/38.
                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                        ) JANSSEN
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                                                                                                                                                                                                                                                                   BJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QYLRALGLK
                           of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QYCRSLGLQ
                                                                                                                                                                     fungal nucleic acids encoding proteins involved in a pathway
o programmed cell death, useful for treating proliferative
, yeast and fungal infections, or for preventing apoptosis in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                194 AA;
281
                           the
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                                                                                                                                                                                                                                                                                                                                                              2000WO-BE00077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
 A,
                                                                                                                                                                                                                                                                                                                                   99EP-0870141
                                                                                                                                                                                                                                                                   Reekmans
                                                                                                                                                                                                                                                                              De Backer MD,
                                                                                                                                                                                                                                                                                                         PHARM
                           invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72.7%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          associated protein #56
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
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                                                                                                                                                                                                                                                                              Luyten WHML,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      n part of the printed format directly from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
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                                                     ischaemia
                                                                             identify
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Gaps

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RESULT 15
AAU35870
                                                                                   The invention relates to antisense inhibitors of genes essential to CC prokaryotic cellular proliferation, their use in identifying the Genes, their use in the discovery of novel antibiotics, the essential CC genes themselves and the encoded proteins. The prokaryotes used are CC Escherichia coli, Staphylococcus aureus, Salmonella typhi, Klebsiella CC pneumoniae, Pseudomonas aeruginosa and Enterococcus faecalis. The CC invention is also useful for the identification of potential new targets CC to identify proteins used in proliferation, to express these proteins, CC for antibiotic development. The antisense nucleic acids can also be used CC to identify proteins used in proliferation, to express these proteins, CC and to obtain antibodies capable of binding to the expressed proteins. CC The proteins can be used to screen compounds in rational drug discovery CC programmes. The antisense nucleic acid sequence is also useful to screen CC promologous nucleic acids which are required for cell proliferation in CC essential prokaryotic cellular proliferation protein.

CC of the printed specification, but was obtained in electronic format directly from WIPO at the processory of the printed specification, but was obtained in electronic format directly from WIPO at
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Query Match
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23-MAY-2000;
26-MAY-2000;
23-OCT-2000;
                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                        Example 3; Seq ID No 11463; 511pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotides for the identification and development antibiotics, comprise sequences of antisense nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-611495/70.
N-PSDB; AAS53729.
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                                                                           ftp.wipo.int/pub/published_pct_sequences
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Sequence 2, Appli	Sequence 11, Appl	Sequence 16, Appl.	Sequence 16, Appl	Sequence 95, Appl	Sequence 16, Appl	Sequence 15, Appl	Sequence 22, Appl	Sequence 22, Appl	Sequence 129, App	•	•	Sequence 60, Appl		Sequence 2, Appli	Sequence 10, Appl	Sequence 26, Appl	Sequence 5594, Ap

ALIGNMENTS

ADDRESSE: Burns, Qoane, Swecker & Mathis STREET: P.O. Box 1404 CITY: Alexandria STATE: Virginia COUNTRY: United States ZIT: 22313-1404 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/611,977 FILING DATE: 06-MAR-1996 CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: JP 4-212305 FILING DATE: 14-JUL-1993 PRIOR APPLICATION NUMBER: JP 6-067339 FILING DATE: 17-JUL-1992 PRIOR APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION: REGISTRATION NUMBER: 39-300 REFERENCE/DOCKET NUMBER: 001560-204 TELEPHONE: (703) 836-6620 TELEPHONE: (703) 836-6221 INFORMATION FOR SEQ ID NO: 5: SEQUENCE CHARACTERISTICS:	ication US/08611977 186 187 187 187 187 188 189 189 189 189 189 189 189 189 189

TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide

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PRIOR APPLICATION DATA:
APPLICATION UNMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
1000/1001 DATA:

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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
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CURRENT APPLICATION DATA:
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APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. 5831030omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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                                      TOPOLOGY:
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TSUROUOKA, No. 58:
NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                             (703) 836-6620
protein
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14-JUL-1993
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FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 00 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Polonia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 07-JUN
                                                                                                                                                                                                                                            TELEPHONE:
                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                      FILING DATE: 04-MAR-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
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289 QYLRALGLK 297
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                             1 QYLRALGLK 9
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                                                                          Similarity
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                                                                                                                                                                amino acid
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                                                           Conservative
                                                                                                                                                                                                                               (703)
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5874253omi
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                                                                                                                                                    linear
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                                                                        Score 44; DB 2;
Pred. No. 0.079;
                                                           Mismatches
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                                                                                      Length 380;
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RESULT 4

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Query Match

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Score 44;

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Length 380;

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                                                                                                                              US-08-472-659-5
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                                                                  Sequence 5, Application Patent No. 5831030 GENERAL INFORMATION
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                                                                                                                                                                                                                                                                                                                 Query Match
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INFORMATION FOR SEQ ID NO:
   APPLICANT:
APPLICANT:
APPLICANT:
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TITLE OF IN
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ATTORNEY/AGENT INFORMATION:
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FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/611,977 FILING DATE: 06-MAR-1996 CLASSIFICATION: 435
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CITY: Alexandria
STATE: Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: MCGOWAN, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-204
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FILING DATE: 04-MAR-1993
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                                                                                                                                                                                                                                                                                              Local
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289 QYLRALGLK 297
                                                                        INFORMATION:
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                                                                                                                                                                                                                                         1 QYLRALGLK 9
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                                                                                                           Application US/08472659
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TSUJIMOTO, Masafumi
IWASA, Fuyuki
TSUROUOKA, No. 5831030uo
NAKAZATO, Hiroshi
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5972886omi
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SYSTEM: PC-DOS/MS-DOS
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US-08-474-661-5
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APPLICANT: TSUJIMO
APPLICANT: TSURUOK
APPLICANT: TSURUOK
APPLICANT: MAKAZAT
APPLICANT: MAKAZAT
APPLICANT: ISHIDA,
                                                                                                                                                                                                                                 Sequence 5, Application US/08474661 Patent No. 5874253
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 5-0
FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 14-JUL-1993
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-UUL-1992
PRIOR APPLICATION DATA:
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                                                                     APPLICANT:
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APPLICANT: YAMAGUCHI, NO. 5831030omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                   FITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                             y Match 88.6%; Score 39; DB 2; L
Local Similarity 100.0%; Pred. No. 1.9e+05;
hes 8; Conservative 0; Mismatches 0;
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SOFTWARE: Patentin Release #1.0, Version #1.30
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STATE: Virginia
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YAMAGUCHI, NO. 587425JOMIL
VENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
EOUENCES: 34
                                                KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. 5874253omi
                                                                                                                                          TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
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                                                                                                                       MIURA, Kenju
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                                                                                                        ISHIDA, No.
                                                                                                                                                                                              TSUJIMOTO, Masafumi
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                                                                  ; ORGANISM: Citrobacter amalonaticus US-09-167-717-2
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   Best Local Similarity 77.8 Matches 7; Conservative
                                 Query Match
                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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Best Local 9
                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                               EQ ID NO 2
LENGTH: 250
TYPE: PRT
                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/167,717
CURRENT FILING DATE: 1998-10-07
EARLIER APPLICATION NUMBER: JP 276261/1997
EARLIER FILING DATE: 1997-10-08
                                                                                                                                                                                                                           APPLICANT: YASUDA, SHINZO
APPLICANT: KOMATSUZAKI, SATOMI
TITLE OF INVENTION: MALEATE ISOMERASE GENE
FILE REFERENCE: PH-555US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                          NUMBER OF
                                                                                                                                                                                                                                                                                                                         tent No.
                                                                                                                                                                                                                                                                                        PPLICANT:
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APPLICATION NUMBER: JP 5
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
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ADDRESSEE: Burns, Doane, Swecker & Mathis
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REFERENCE/DOCKET NUMBER: 001560-204
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                        2, Application US/09167717
5. 6133014
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                                                                                                                                               SEQ ID NOS:
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8; Conserv
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100.0%; Pr
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                75.0%;
77.8%;
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Score 33; DB 4; Length 250; Pred. No. 13; Indels
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                                                                                           RESULT 9
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US-09-004-838-22
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                                            Patent No.
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Best Local
                                                              Sequence 88,
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                              GENERAL INFORMATION:
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APPLICANT: APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Procedures and Materials for TITLE OF INVENTION: Conferring Pest Resistance in Plants NUMBER OF SEQUENCES: 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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nes 5; Conserv
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LOCATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                               LOCATION: 1..1366
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 38,440
REFERENCE/DOCKET NUMBER: 023070-078810US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 09-JA
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                                                8, Application US/09004838
6350933
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 Shen, Kathy
                Michelmore, Richard W.
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55.6%;
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Pred. No.
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86;
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APPLICANT:

Meyers, Blake

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CURRENT APPLICATION NUMBER: US/09/314,847A
CURRENT FILING DATE: 2000-05-19
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 4
SEQ ID NO 4
LENGTH: 387
TYPE: PRT
ORGANISM: E. blatte
US-09-314-847A-4
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Best Local :
Query Match
Best Local Similarity
                                                                                                                                                                                                           APPLICANT: Schellenberger, Volker
APPLICANT: Liu, Amy D.
APPLICANT: Selifonova, Olga V.
TITLE OF INVENTION: Directed Evolution of Microorganisms
FILE REFERENCE: GC560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (415) 576-030 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 09-JAN-1998
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/781,734
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RECISTRATION NUMBER: 38,440
REFERENCE/COCKET NUMBER: 02
TELECOMMUNICATION INFORMATION
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
nes 5; Conserv
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OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/004,838
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Two Embarcadero Center, Eighth Floor
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55.6%;
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70.5%;
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 Score 31;
Pred. No.
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Pred. No. 1.2e+02;
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 57;
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                  Length 387;
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RESULT 13
US-09-570-778A-8
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; TYPE: PRT
; ORGANISM: Escherichia blattae
US-09-570-778A-7
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US-09-570-778A-7
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Best Local Similarity
Whiches 6; Conserva
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; TYPE: PRT
; ORGANISM: Escherichia blattae
US-09-570-778A-2
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US-09-570-778A-2
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SOFTWARE: FastSEQ for
SEQ ID NO 7
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                                                                                                                                           Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Trimbur, Donald E.
APPLICANT: Whited, Gregory M.
APPLICANT: Selifonova, Olga V.
TITLE OF INVENTION: Mutant 1,3-propanediol Dehydrogenase
FILE REFERENCE: GC580-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/570,778A CURRENT FILING DATE: 2000-05-14 PRIOR APPLICATION NUMBER: US 60/134,868 PRIOR FILING DATE: 1999-05-19
                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 60/134,868 PRIOR FILING DATE: 1999-05-19
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SOFTWARE: FastSEQ for W1
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APPLICANT: Selifonova, Olga V.
TITLE OF INVENTION: Mutant 1,3-Propanediol Dehydrogenase
FILE REFERENCE: GC580-2
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                                                                                                                                         Local
                                                              342 QHLRELGVK 350
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6; Conserv
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Pred. No. 57;
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Sequence 8, Application US/09570778A Patent No. 6468773

GENERAL INFORMATION:

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GENERAL INFORMATION:

APPLICANT: Trimbur, Donald E.

APPLICANT: Whited, Gregory M.

APPLICANT: Selifonova, Olga V.

TITLE OF INVENTION: Mutant 1,3-Propanediol Dehydrogenase
FILE REFERENCE: GC580-2

CURRENT APPLICATION NUMBER: US/09/570,778A

CURRENT FILING DATE: 2000-05-14

PRIOR APPLICATION NUMBER: US 60/134,868

PRIOR APPLICATION NUMBER: US 60/134,868

PRIOR FILING DATE: 1999-05-19

NUMBER OF SEO ID NOS: 12

SOFTWARE: FastSEQ for Windows Version 4.0

SEO ID NO 9

LENGTH: 387

TYPE: PRT

ORGANISM: Escherichia blattae
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; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 387
; TYPE: PRT
; ORGANISM: Escherichia blattae
US-09-570-778A-8
                                                                                                                                                                                                                                                                                             RESULT 15
US-09-347-801-4
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APPLICANT: Allen, Steve
APPLICANT: Lee, Jian Ming
TITLE OF INVENTION: Plant Protein Kinases
FILE REFERENCE: BB-1171
CURRENT APPLICATION NUMBER: US/09/347,801
CURRENT FILING DATE: 1999-07-02
EARLIER APPLICATION NUMBER: 60/092,438
EARLIER FILING DATE: July 10, 1998
NUMBER OF SEQ ID NOS: 23
SOFTWARE: Microsoft Office 97
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Matches 6
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Best Local Similarity
Matches 6; Conserv
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                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Trimbur, Donald E.
APPLICANT: Whited, Gregory M.
APPLICANT: Selifonova, Olga V.
TITLE OF INVENTION: Mutant 1,3-Propanediol Dehydrogenase
FILE REFERENCE: GC580-2
CURRENT FILING DATE: 2000-05-14
PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR APPLICATION NUMBER: US 60/134,868
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Local Similarity 66.7%;
les 6; Conservative
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342 QHLRELGVK 350
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Search completed: July 11, 2003, 12:02:08 Job time: 2.60915 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq
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                      Sequence 5, Appli
Sequence 34, Appl
Sequence 34, Appl
Sequence 33, Appl
Sequence 1310, Appl
Sequence 111625, A
Sequence 11625, A
Sequence 11167, Appli
Sequence 11167, Appli
Sequence 7, Appli
Sequence 7, Appli
Sequence 8, Appli
Sequence 9, Appli
Sequence 3, Appli
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Sequence 10914, A
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US-10-091-442-5
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US-09-815-242-5446	US-10-191-513A-16	US-09-892-398-22	9-864	US-10-101-464A-129	US-09-764-864-1171	US-10-101-464A-553	US-09-738-626-4102	US-10-156-761-12478	-835-)9-972-115#	761	.0-156-761-1	US-09-764-853-641	0-093-037-2	US-10-121-032-26	US-09-815-242-11349	US-09-991-138-11	US-09-991-138-10	US-09-308-207-37	US-10-147-874-2	US-09-895-913A-134	US-09-851-682A-1	US-10-156-761-14694	US-09-854-731-18	US-09-854-731-4
e 544		~	164,	Sequence 129, App	e 1171	553, 1	Sequence 4102, Ap	2478,	e 2,	Sequence 8, Appli	Sequence 14161, A	1435,	e 641,	26,	Sequence 26, Appl	e 113	Sequence 11, Appl	Sequence 10, Appl	37,	Sequence 2, Appli	Sequence 134, App	e 1,	14694	18,	Sequence 4, Appli

ALIGNMENTS

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Sequence 5, Application US/10091442

Patent No. US20020164711A1

GENERAL INFORMATION:

APPLICANT: TSUJIMOTO, Masafumi

IWASA, Fuyuki

TSUROUOKA, No. US20020164711A1uhiro

KURIHAR, Kenju

ISHIDA, No. US20020164711A1uhiro

KURIHAR, Tatsuya

YAMAICHI, KOZO

YAMAICHI, KOZO
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                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
ADDITION TO DATA:
AD
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TELEFAX: (703) 836-20
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
                                                                                                 APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 3: CORRESPONDENCE ADDRESS:
ATTORNEY/AGENT INFORMATION:
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                                      APPLICATION NUMBER: JP 6 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: 08-AUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear MOLECULE TYPE: peptid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RY: United States 22313-1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Virginia
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REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TSUROUOKA, No. US20010026931A1uo NAKAZATO, Hiroshi
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YAMAGUCHI, NO. US20010026931A1omi
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                                                                     JP 6-067339
                                                                                                                                                                       JP 4-212305
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Pred. No. 4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 34, Application U Patent No. US20020164711A1 GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 00 TELECOMMUNICATION INFORMATION:
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STRANDEDNESS: sir
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             NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                      FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
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ADDRESSEE: Burns,
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                                                                                                                                                                                                                                                                                                        FILING DATE: 07-Mar-2002. CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Alexandria
STATE: Virginia
TELEPHONE:
                                                                                                                                                                                                                APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: P.O. Box 1404
                                                                                                                                          APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                        APPLICATION NUMBER: JP
                                                                                                                                                                            APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
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YAMAICHI, KOZO
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NAKAZATO, Hiroshi
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836-2021
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(703)
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                                                                                                                         6-067339
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Best Local S
Matches 9
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                                   TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO:
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              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 17-JUL-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
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                                                                 REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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                                                                                                                                                  FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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nes 9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Virginia
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Alexandria
                                                                                                                                                                                       APPLICATION NUMBER: JP 6-067339
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            289 QYLRALGLK 297
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22313-1404
                                                                                                                                     McGowan, Malcolm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 380 amino acids
380 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KURIHARA, Tatsuya
YAMAICHI, Kozo
YAMAGUCHI, No. US20010026931Alomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIURA, Kenju
ISHIDA, No. US20010026931A1uhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TWASA, Fuyuki
TSUROUOKA, No. US:
NAKAZATO, Hiroshi
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ilarity 100.0%;
Conservative 0;
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                                                                                                                                                                                                                      UMBER: JP 4-212305
17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                            UMBER: US/09/140,719
08-AUG-1998
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Pred. No.
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Query Match
Best Local Similarity
6; Conserve
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                                                                                                                          ; ORGANISM: Saccharomyces cerevisiae US-10-083-357-1310
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                                                                                                                                                                                                                    Sequence 1310, Application US/10083357

Publication No. US20030054370A1

GENERAL INFORMATION:
APPLICANT: Qiandong Zeng et al.
TITLE OF INVENTION: Systemic Discovery of New Genes
FILE REFERENCE: 032796-090
CURRENT APPLICATION NUMBER: US/10/083,357
CURRENT FILING DATE: 2002-02-27
                                                                                                                                                                   NUMBER OF SEQ ID NOS: 1346
SEQ ID NO 1310
LENGTH: 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 177
SOFTWARE: FRSTSEQ for Windows Version 4.0
SEQ ID NO 53
LENGTH: 350
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                                                                            Query Match
Best Local :
                                                              Matches
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CURRENT FILING DATE: 2001-05-01
NUMBER OF SEQ ID NOS: 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: FUSION MOLECULES AND TREATMENT OF TITLE OF INVENTION: IGE-MEDIATED ALLERGIC DISEASES FILE REFERENCE: UC67.002A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Saxon, Andrew APPLICANT: Zhang, Ke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Zhu,
                                                                                                                                                           TYPE: PRT
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                                                          Local Similarity
nes 6; Conserv
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nes 9; Conserv
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1094 QYLNGIĞLK 1102
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                             1 QYLRALGLK 9
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                                                              Conservative
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                                                                            75.0%;
66.7%;
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                                                                         Score 33; DB 9;
Pred. No. 4.6e+02;
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Pred. No.
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RESULT 7 US-09-815-242-11463 ; Sequence 11463, Application US/09815242 ; Patent No. US20020061569A1

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TITLE OF INVENTION: Identification of Essential Genes in TITLE OF INVENTION: Prokaryotes FILE REFERENCE: ELITRA.011A CURRENT APPLICATION NUMBER: US/09/815,242 CURRENT FILING DATE: 2001-03-21 PRIOR APPLICATION NUMBER: 60/191,078 PRIOR FILING DATE: 2000-03-21 PRIOR FILING DATE: 2000-03-21 PRIOR APPLICATION NUMBER: 60/206,848 PRIOR FILING DATE: 2000-05-23 PRIOR APPLICATION NUMBER: 60/206,727 PRIOR FILING DATE: 2000-05-26 PRIOR FILING DATE: 2000-05-26 PRIOR FILING DATE: 2000-05-26
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US-09-815-242-11625
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LENGTH: 327
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                   PRIOR APPLICATION NUMBER: 60/242,578 PRIOR FILING DATE: 2000-10-23
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PRIOR FILING DATE: 2000-05-23
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CURRENT FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR FILING DATE: 2000-03-21
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TITLE OF INVENTION: Prokaryotes
FILE REFERENCE: ELITRA.011A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR FILING DATE:
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PRIOR APPLICATION NUMBER: 60/253,625
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FILING DATE: 2000-05-26
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Trawick, John D.
                                                                                                                                                                                                                                                                                           Yamamoto, Robert T. Xu, H. Howard
                                                                                                                                                                                                                                                                                                                                Carr, Grant J.
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Zyskind, Judith W.
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NUMBER: 60/253,625
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Pred. No.
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                                                                                                                                      ; ORGANISM: Pseudomonas aeruginosa US:09-815-242-12104
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Best Local Similarity
Thehes 6; Conserve
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US-09-815-242-11625
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                                                                 Matches
                                                                                 Query Match
Best Local
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SEQ ID NO 11625
LENGTH: 327
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TITLE OF INVENTION: Identification of Essential Genes
TITLE OF INVENTION: Prokaryotes
FILE REFERENCE: ELITER.011A
CURRENT APPLICATION NUMBER: US/09/815,242
CURRENT FILING DATE: 2001-03-21
CURRENT FILING DATE: 2001-03-21
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PRIOR FILING DATE: 2000-12-2
PRIOR APPLICATION NUMBER: 60/2
PRIOR FILING DATE: 2001-02-16
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PRIOR APPLICATION NUMBER: 60/207,727
PRIOR FILING DATE: 2000-05-26
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                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 14110
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PRIOR APPLICATION NUMBER: 60/206,848
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                                                                                                                                                                                          LENGTH:
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                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/257,931
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188 QYARAMGL 195
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5. US20020061569A1
                             1 QYLRALGL 8
                                                                 Similarity 6; Conserv
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                                                                 Conservative
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                                                                                   72.78;
75.08;
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66.7%;
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                                                                                 Score 32;
Pred. No.
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Pred. No.
                                                                   Mismatches
                                                                                   DB 10;
1.6e+02;
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RESULT 10 US-10-023-282-1116 ; Sequence 1116, Application US/10023282

US20030092893A1

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EARLIER APPLICATION NUMBER: 09/205,258 EARLIER FILING DATE: 1998-12-04
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                                             APPLICATION 1
                                                                         APPLICATION NUMBER: 60/048,917 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/048,949
                                                                                                                                      APPLICATION NUMBER: 60/048,875 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/049,374
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SOFTWARE: PatentIn Ver.
SEQ ID NO 1116
LENGTH: 292
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NAME/KEY: SITE
LOCATION: (40)
OTHER INFORMATION: 1
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LOCATION: (11)
OTHER INFORMATION:
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                                            NAME/KEY: SITE LOCATION: (257) OTHER INFORMATION:
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OTHER INFORMATION:
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LOCATION: (258)
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FILING DATE: 1998-07-15
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FILING DATE: 1997-06-06
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FILING DATE: 1997-06-06
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US-09-991-138-2
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US-10-037-677-4
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SEQ ID NO 2
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APPLICANT: Schellenberger, Volker
APPLICANT: Liu, Amy D.
APPLICANT: Selifonova, Olga V.
TITLE OF INVENTION: Directed Evolution of Microorganisms
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LENGTH: 3
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Patent No. US20020173003A1
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                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Mutant 1,3-Propanediol Dehydrogenase FILE REFERENCE: GC580-2D1
CURRENT APPLICATION NUMBER: US/09/991,138
CURRENT FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: US 09/570,778
PRIOR APPLICATION NUMBER: US 09/570,778
PRIOR FILING DATE: 2000-05-14
PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR FILING DATE: 1999-05-19
NUMBER OF SEQ ID NOS: 12
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CURRENT FILING DATE: 2001-10-23
PRIOR APPLICATION NUMBER: 09/314,847
PRIOR FILING DATE: 1999-05-19
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Escherichia blattae
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Local Similarity 66.7%;
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1; Mismatches 0;
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Pred. No. 2.8e+02;
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Pred. No. 2.8e+02;
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                                                      Sequence 9, Application US/09991138 Publication No. US20030040091A1 GENERAL INFORMATION:
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APPLICANT: Whited, Gregory M.
APPLICANT: Sellfonova, Olga V.
TITLE OF INVENTION: Mutant 1,3-propanediol Dehydrogenase
FILE REFERENCE: GC580-2D1
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APPLICANT: Whited, Gregory M.
APPLICANT: Sellifonova, Olga V.
TITLE OF INVENTION: Mutant 1,3-Propanediol Dehydrogenase
FILE REFERENCE: GC580-2D1
APPLICANT: Trimbur, Donald E. APPLICANT: Whited, Gregory M. APPLICANT: Selifonova, Olga V.
                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR FILING DATE: 1999-05-19
NUMBER OF SEQ ID NOS: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/991,138
CURRENT FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: US 09/570,778
PRIOR FILING DATE: 2000-05-14
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PRIOR FILING DATE: 2000-05-14
PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR FILING DATE: 1999-05-19
                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 38
                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ
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                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Escherichia blattae
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66.7%;
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Pred. No. 2.
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Pred. No. 2.8e+02;
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Gaps

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FILE REFERENCE: GCS80-201
CURRENT APPLICATION NUMBER: US/09/991,138
CURRENT FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: US 99/570,778
PRIOR APPLICATION NUMBER: US 90/570,778
PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR APPLICATION NUMBER: US 60/134,868
PRIOR FILING DATE: 2000-05-19
NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 9
LECTH: 387
TYPE: PRT
ORGANISM: Escherichia blattae
US-09-991-138-9

Query Match
Best Local Similarity 66.7%; Pred. No. 2.8e+02;
Matches 6; Conservative 2; Mismatches 1; Indels 0; Gaps O;

QY 1 QYLRALGLK 9
1:11 | 1:1
Db 342 QHLRELGVK 350

Search completed: July 11, 2003, 12:37:33
Job time: 2.63825 secs
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Minimum DB
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 US-10-091-442-5
44
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length: 2000000000
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н82566	AG2565	T36443	A24648	A97124	A97201	T35972	T17431	E86565	F72059	T43215	T40395	T10772	G96976	S15074	F82254
GumH protein XF236	hypothetical prote	probable penicilli	alcohol dehydrogen	rECA recombinase,	hemin permease (im	hypothetical prote	hypothetical prote	hypothetical prote	hypothetical prote	ribonucleotide red	LIM domain protein	calpastatin - rat	probable periplasm	calpastatin - rat	PTS system, N-acet

ALIGNMENTS

A; Cross-references: EMBL:Ul1883; NID:g520538; PIDN:AAA64948.1; PID:g520542
A; Cross-references: EMBL:Ul1883; NID:g520538; PIDN:G520542
A; Extraction, S.; Emmerson, P.T.; Entian, C.V.; Edater, N.; Fundano, V.; Funda, S.; Galizzi, A.; Gali C; Genetics: A; Gene: ypoC; j C; Superfamily: C;Species: Bacillus subtilis C;Date: 12-Aug-1996 #sequence_revision C;Accession: I40526; I40530; E69939 A;Title: Nucleotide sequence of the Bacillus subtilis dnaD gene. A;Reference number: I40523; MUID:95219085; PMID:7704260 A;Accession: I40526 R;Popham, D.L.; Setlow, P.
J. Bacteriol. 17, 326-335, 1995
A;Title: Cloning, nucleotide sequence, and mutagenesis of the A;Reference number: I40527; MUID:95113769; PMID:7814321
A;Accession: I40530 hypothetical protein ypoC - Bacillus subtilis N; Alternate names: hypothetical protein Y (ponA operon); jooC proteinA; Molecule type: DNA A; Residues: 1-164 < RE2> A; Status: preliminary; translated from GB/EMBL/DDBJ A; Molecule type: DNA A; Residues: 1-164 <RES> R;Bruand, C.; Sorokin, A.; Serror, P.; Ehrlich, S.D. Microbiology 141, 321-322, 1995 A;Cross-references: GB:Z99115; A;Experimental source: strain A; Residues: 1-164 < KUN> A; Molecule type: DNA A; Status: preliminary; nucleic acid sequence not shown; translation not A;Cross-references: EMBL:U11289; NID:g533096; PIDN:AAA80006.1; PID:g533100 A; Status: preliminary; translated Bacillus subtilis hypothetical protein ypoC ; GB:AL009126; NID:g2634478; PIDN:CAB14149.1; PID:g26346 168 from GB/EMBL/DDBJ 12-Aug-1996 #text_change 20-Jun-2000 Bacillus subtilis ponA

Score 35;

DB 2;

Length 164;

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A; Gene: TM1031
C; Superfamily:
C; Keywords: ele
                                                                                                                                                                                                                                                                                                                                                                                                                                          Nature 399, 323-329, 1999
A;Title: Evidence for lateral gene transfer between Archaea and Bacteria
A;Reference number: A72200; MUID:99287316; PMID:10360571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glutaredoxin - Thermotoga maritima (strain MSB8)
c;Species: Thermotoga maritima
c;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 21-Ju1-2000
C;Accession: F72303
R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, R;Nelson, R;
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F72303
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                                                                                                                                                                                                                                                             A; Cross-references: GB:AE001764; GB:AE000512; NID:g4981561; PIDN:AAD36108.1;
                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-80 < ARN>
                                                                                                                                                                                                                                             A; Experimental
                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: GB:Z99106; GB:AL009126; NID:g2632653; A;Experimental source: strain 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-270 < KUN>
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Nature 390, 249-256,
        Query Match
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7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gill, S.R.; Gwinn, M.L.; I
Cotton, M.D.; Pratt, M.S.;
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1; Mismatches
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                                                                                                            probable glutaredoxin
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DB
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Length 80
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; Phillips, C.A.; Ri
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                                                                                                                                                                                                                                                                     PID:g49815
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jon, D.;
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A; Note: Intron p
C; Superfamily: c
C; Keywords: carb
                                                                                                                                                                                                                                                                                             A:Cross-references: EMBL:X81694; NID:g608689; PIDN:CAA57342.1; PID:g608690 A:Note: only a part of the coding sequence is given R:Shen, H.D.; Choo, K.B.; Lee, H.H.; Hsieh, J.C.; Lin, W.L.; Lee, W.R.; Har Clin. Exp. Allergy 21, 675-681, 1991
A:Title: The 40-kilodalton allergen of Candida albicans is an alcohol dehyda:Reference number: A61504; MUID:92136159; PMID:1777830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
S52153
                                            C;Superfamily: alcohol dehydrogenase; long-chain alcohol dehydrogenase homology C;Keywords: alcohol metabolism; NAD; oxidoreductase; zinc F;31-338/Domain: long-chain alcohol dehydrogenase homology <LADH>F;46,69,156/Binding site: zinc, catalytic (Cys, His, Cys) #status predicted
                                                                                                                                                             C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Structure and regulation of the Candida albicans ADH1 A;Reference number: S63781; MUID:96287648; PMID:8686375 A;Accession: S63781
                                                                                                                                           A; Gene: ADH1
                                                                                                                                                                                     A; Note:
                                                                                                                                                                                                       A; Residues: 104-139, 'T', 141-226, 'A', 228-312, 'S' <SHE>A; Cross-references: GB: X81694; NID: g608689
                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-350 <BE2>
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C;Accession: S63781; A61504; S52153
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                                                                                                                                                                                                                                                   A; Molecule type: mRNA
                                                                                                                                                                                                                                                                             A; Accession: A61504
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N;Alternate names: 40K allergen C;Species: Candida albicans
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C;Genetics:
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A;Description: The evolution of cryptochrome ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R; Kolukisaoglu, U.; Schneider-Poetsch, H.A.
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A; Accession: T06581
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Matches
                                                                                                                                                                                  sequence extracted from NCBI backbone (NCBIN:80403, NCBIP:80409;
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deoxyribodipyrimidine photo-lyase
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A;Status: A. A;Status: A;Anolecule type: DNA
A;Rolecules: 1-406 <WHI>
A;Cross-references: GB:AE001890;
A;Cross-references: Strain Ri
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C:Species: Deinococcus radiodurans
C:Species: Deinococcus radiodurans
C:Date: 03:Dec:1999 #sequence_revision 03-Dec:1999 #text_change 17-Mar-2000
C:Accession: C7537
R:White, O: Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, J.D.; Dodson, M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback; T.; Zalewski, S.; Smith, H.O.; Venter, J.C.; Fraser, C.M.
Science 286, 1571-1577, 1999
A:Title: Genome sequence of the radioresistant bacterium Deinococcus radiodurans R
A:Reference number: A75250; MUID:20036896; PMID:10567266
                                                                                                                                                                                                                                                                                                                                                                          C;Accession: B64486
R;Bult, C.J.; White, O; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Gloc rson, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A. Science 273, 1058-1073, 1996
A;Authors: Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; W.A;Title: Complete genome sequence of the methanogenic archaeon, Methanococcus jar A;Reference number: A64300; MUID:96337999; PMID:8688087
A;Accession: B64486
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C75537
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A:Start codon: GTG
C:Superfamily: Methanococcus janna
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C;Species: Methanococcus Jannaschii
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
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C:Superfamily: tetracycline resistance protein
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A; Residues: 1-127 <B
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                                                                                                                                                                                                                                                                                                  A; Cross-references: GB:U67590; GB:L77117;
                                                                                                                                                                                                                                                                                                                                                       A; Status: preliminary; nucleic acid sequence not shown; translation
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Best Local S
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6; Conserv
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                                                             YLSALGLK 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YLRALGL 39
                                                                                                                                                                                                                    Methanococcus jannaschii hypothetical
                                                                                                                                       Conservative
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87.5%;
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2; Mismatches
                                                                                                                                                         Score 33;
Pred. No.
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Pred. No.
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8
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dek, A.
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A;Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A;Title: Deciphering the biology of Mycobacterium tuberculosis from the complete A;Reference number: A70500; MUID:98295987; PMID:9634230
A;Accession: E70661
                                                                                                                                                                                                                    RESULT 10
T08421
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C;Species: Mycobacterium tuberculosis
C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 20-Jun-2000
                                    R;Shen, K.A.; Meyers, B.C.; Faridi, submitted to the EMBL Data Library, A;Reference number Z16412
A;Accession: T08421
                                                                                                                resistance protein homolog RGC2a - garden lettuce N;Alternate names: resistance protein candidate C;Species: Lactuca sativa (garden lettuce) C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 C;Accession: T08421
                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Gene: PE
C; Superfamily:
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A; Residues: 1-412 < PAR>
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6; Conser
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77.8%;
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H37Rv
                      from
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RESULT

N.; Chin, D.B.; August 1997

Stelly,

D.M.;

Michelmore,

#text_change 11-Jun-1999

Mismatches DB 58;

0;

Gaps

0

2 protein

Length 413;

NID: g3261681;

PIDN:CAB06157.1; PID:g17812

translation

not

geno

Holroyd,

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R;Parkhill, J.; Wren, B.W.; Mungall, K.; Ketley, J.M.; Churcher, C.; C.W.; Quail, M.; Rajandream, M.A.; Rutherford, K.M.; VanVliet, A.; WN Nature 403, 665-668, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                             ankyrin repeat-containing probable periplasmic protein Cj0834c [imported] - C;Species: Campylobacter jejuni C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 03-Jun-2002 C;Accession: B81356
                                                                                                                                                                                                                                                                       A;Title: The genome sequence of the food-borne pathogen Campylobacter jejuni reveals A;Reference number: A81250; MUID:20150912; PMID:10688204
A;Accession: B81356
                                                                                                                                                A;Cross-references: GB:AL139076; GB:AL111168; NID:g6968128; PIDN:CAB73099.1; A;Experimental source: serotype O2, strain NCTC 11168
  2;
                       Score 33;
Pred. No.
ced. No. 58;
Mismatches
                                                  2
                                                  Length 412
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  Gaps
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, S.; Bar
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A; Molecule type: DNA
A; Residues: 1-1467 <5TU>
A; Residues: 1-1467 <5TU>
R; Stucka, R.; Schwarzlose, C.; Lochmller, H.;
R; Stucka, R.; Schwarzlose, C.; Lochmller, H.;
A; Bescription: Molecular analysis of the yeas
A; Reference number: S27465
A; Accession: S27465
                                                                                                                                                                                                                                                                                                                                                 TyB protein - yeast (Saccharomyces cerevisiae) retrotransposon Ty4 (fragment) N;Contains: integrase; proteinase; reverse transcriptase; RNase H C;Species: Saccharomyces cerevisiae C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 26-May-2000 C;Accession: PC1253; S27465 R;Stucka, R; Schwarzlose, C.; Lochmueller, H.; Haecker, U.; Feldmann, H. Gene 122, 119-128, 1992 A;Rtile: Molecular analysis of the yeast Ty4 element: Homology with Ty1, copid A;Reference number: JC1482; MUID:93083972; PMID:1333437 A;Accession: PC1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
PC1253
                                                                                                 A; Mobile element:
C; Superfamily: TyP
                                                                                                                                                                    A; Molecule type: DNA
A; Residues: 1-1467 <STW>
A; Cross-references: EMBL: M94164
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A;Residues: 1-1465 <JAN>
A;Cross-references: EMBL:S46865
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J. Blol. Chem. 267, 19798-19805, 1992
A;Title: Ty4, a new retrotransposon from Saccharomyces cerevisiae, A;Reference number: S31261; MUID:93015829; PMID:1328182
A;Accession: S31262
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C;Accession: S31262
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A; Cross-references:
                               Matches
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Best Local
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: EMBL:AF017752; NID:g2852685; PID:g2852686
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66.7%;
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55.6%;
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                            1;
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                          Score 33; DB 2;
Pred. No. 2.1e+02;
1; Mismatches 2
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2.1e+02;
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1.6e+02;
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R;Ng, W.V.; Kennedy, S.P.; Mahairas, G.G.; Berquist, I; Leithauser, B.; Keller, K.; Cruz, R.; Danson, M.J.; Jung, K.H.; Alam, M.; Freitas, T. Proc. Natl. Acad. Sci. U.S.A. 97, 12176-12181, 2000 A;Authors: Hou, S.; Daniels, C.J.; Dennis, P.P.; Omer.
                                                                                                                                                                  RESULT
E84232
                                                                                                      hypothetical protein Vng0750c [imported] - Halobacterium sp. NRC-1
C;Species: Halobacterium sp. NRC-1
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 02-Feb-2001
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S56894
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A; Residues: 1-1803 <CZI>
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A; Accession: S56894
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TyB protein - yeast (Saccharomyces cerevisiae) retrotransposon Ty4.JL N;Alternate names: protein J0780; protein YJL113w C;Species: Saccharomyces cerevisiae C;Date: 08-J1-1995 #sequence_revision 08-Sep-1995 #text_change 17-Mar-2000
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N;Alternate names: protein YHL008w-a
C;Species: Saccharomyces cerevisiae
C;Date: 05-May-1995 #sequence_revision 19-Oct-1995 #text_change 23-Mar-2001
Score 33; DB 2; Pred. No. 2.6e+02; Wismatches 2;
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Omer,

A.D.;

Ebhardt,

H.; Lowe,

T.M.;

B.; Pan, M.; Shukla, H.D.; Lasky; Hough, D.W.; Maddocks, D.G.; Ja

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Result
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 SwissProt_40:*
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CHPL_SCHPO
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RECA_CLOAB
ADH3_EMENI
ISPG_THETN
HISZ_AQUAE
DACA_ECOLI
GIDA_CAMJE
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Q58886 methanococc
P47024 saccharomyc
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Q9pna7
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1 homo saplen
3 caulobacter
1 pseudomonas
5 kluyveromyc
3 citrobacter
7 klebsiella
5 buchnera ap
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075635;
15-JUN-2002 (Rel. 41, C
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15-JUN-2002 (Rel. 41, I
Megsin (TP55) (Serpin E
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InterPro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
                              Genew; HGNC:13902; SERPINB7.
MIM; 603357; -.
                                              EMBL; D88575; BAA31232.1;
EMBL; AF027866; AAC64506.1
HSSP; P05619; 1HLE.
                                                                           modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce, or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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ALIGNMENTS

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MEDINE-97326116; PubMed-9182567;
Tsujimoto M., Tsuruoka N., Ishida N., Kurihara T., Iwasa F.,
Tsujimoto K., Rogi T., Kodama S., Katsuragi N., Adachi M.,
Yamashiro K., Rodi T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K.,
Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Mizoguchi H., Yamaguchi N.;
"Purification, cDNA cloning, and characterization of a new serpin with
megakaryocyte maturation activity.";
J., Biol. Chem. 272:15373-15380(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-Mesangial cells;
MEDLINE-98376492; PubMed-9710452;
Miyata T., Nangaku M., Suzuki D., Inagi R., Uragami K., Sakai H.,
Okubo K., Kurokawa K.;
"A mesangium-predominant gene, megsin, is a new serpin upregulate
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                     IgA nephropathy.";
J. Clin. Invest. 102:828-836(1998).
-!- FUNCTION: Might function as an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                      FUNCTION: Might function as an inhibitor of Lys-specific proteases. Might influence the maturation of megakaryocyt its action as a serpin.

SUBCELLULAR LOCATION: Cytoplasmic (By similarity). SUBCELLULAR LOCATION: Predominantly expressed in mesangial TISSUE SPECIFICITY: Predominantly EAWILY. OV-SERPIN SUBFASIMILARITY: BELONGS TO THE SERPIN FAMILY.
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RX KEDLINE-98044033; PubMed-9384377;
RA Azevedo V. Bertero M.G., Bessieres P., Bolotin A., Borchert S.,
RA Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,
RA Borniss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,
RA Borniss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,
RA Borniss R., Boursier L., Brans A., Enhick S.D., Emmerson P.T.,
RA Chol S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,
Denizot F., Devine K.M., Dusterhoft A., Ehrlich S.D., Emmerson P.T.,
RA Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N.,
RA Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N.,
RA Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,
RA Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N.,
RA Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L.,
RA Gulseppi G., Guy B.J., Haga K., Haiech J., Harwood C. R., Henaut A.,
RA Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L.,
RA Kobayashi Y., Koetter P., Koningstein G., Krogh S., Kumano M.,
RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,
RA Medina N., Mellado R.P., Mizuno M., Moestl D., Nakai S., Noback M.,
RA Presecan E., Pujic P., Purnelle B., Rappoort G., Rey M., Reynolds S.,
RA Parro V., Pohl T.M., Portetelle D., Porwollik S., Prescott A.M.,
RA Presecan E., Pujic P., Purnelle B., Rappoort G., Rey M., Reynolds S.,
RA Seto T., Scanlan E., Schleich S., Schroeter R., Scoffone F.,
Sekiguchi J., Sekowska A., Seror S.J., Seror P., Shin B.S., Soldo B.,
RA Takeuchi M., Tamakoshi A., Tanaka T., Terpstra P., Tognoni A.,
RA Taseuchi M., Tamakoshi A., Tanaka T., Terpstra P., Tognoni A.,
RA Visnia A., Winters P., Wilpat A., Yandenbo M., Yannier F., Vassarotti A.,
RA Visnia R., Vashawa H.F., Zumstein E., Yoshikawa H., Danchin A.;
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01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
Alcohol dehydrogenase 1 (EC 1.1.1.1) (40 kDa allergen) (Allergen and 1) (Can a I).
                                                                                                                                                                                                                                                         MEDLINE=96287648; PubMed=8686375; Bertram G., Swoboda R.K., Gooday G.W., Go "Structure and regulation of the Candida an immunogenic alcohol dehydrogenase."; Yeast 12:115-127(1996).
                            -1- COFACTOR: ZINC.
-1- SUBUNIT: HOMOTETRAMER (BY SIMILARITY).
-1- SUBCELLULAR LOCATION: Cytoplasmic (Probable).
-1- SIMILARITY: BELONGS TO THE ZINC-CONTAINING ALCOHOL.
                                                                                                         monoclonal antibodies.";
                                                                                                                                                      SEQUENCE C. MEDLINE=92136159; Pubm
                                                                                                                                                                                                                                                                                                                                                          Candida albicans (Yeast).
Eukaryota; Fungi; Ascomyo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CANAL
                                                                                       Clin. Exp. Allergy 21:675-681(1991)
-!- CATALYTIC ACTIVITY: An alcohol -
                                                                                                                                   "The 40-kilodalton allergen of Candida
                                                                                                                                                Han S.H
                                                                                                                                                                                                              Pendrak M.L.,
                                                                                                                                                                                                                         STRAIN-B311A;
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Pred. No. 3
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5BB082046B7674CB CRC64;
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MEDLINE-96337999; pubMed-8688087;

Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann.R.D.,

Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann.R.D.,

Sutton G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D.,

Kerlavage A.R., Dougherty B.A., Tomb J.-F., Adams M.D., Reich C.I.,

Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,

Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D.,

Scott J.L., Geoghagen N.S.M., Peterson J.D., Sadow P.W., Hanna M.C.,

Cotton M.D., Roberts K.M., Hurst M.A., Kalne B.P., Borodovsky M.,

Klank H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.;

"Complete genome sequence of the methanogenic archaeon, Methanococcus Science 273-1058-1073(1966)
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CELLULAR LOCATION: Integral membrane protein (Potential).
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30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Transposon Ty4 207.7 kDa hypothetical protein.
Ty4B OR YJL113W OR J0780.
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SEQUENCE
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TIGR;
                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ew the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entitles requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                      Cziepluch C., Kordes E., Pujol A., Jauniaux J.-C.; requencing analysis of a 40.2 kb fragment of yeast chromosome X reveals 19 open reading frames including URA2 (5' end), TRK1, PBS2 SPT10, GCD14, RPE1, PHO86, NCA3, ASF1, CCT7, GZE3, two tRNA genes, three remnant delta elements and a Ty4 transposon."; Yeast 12:1471-1474(1996).
                                                                                              Transposable 
SEQUENCE 18
                                                                                                                     Pfam; PF00665; rve; 1.
SMART; SM00343; ZnF_C2HC; 1.
                                                                                                                                                                      EMBL; 249389; CAA89409.1; -. SGD; S0003649; YJL113W.
                                                                                                                                                                                                                                                                                                                                                                               STRAIN=S288c / FY1679;
MEDLINE=97103775; PubMed=8948101;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota: Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saccharomyces cerevisiae (Baker's yeast).
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P47024; P87192;
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                                                                                                                                           InterPro; IPR001584; Rve.
InterPro; IPR001878; Znf_CCHC.
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1432 QYLNGIGLK
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MJ1491;
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16 36
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127 AA; 1
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6 POTENTIAL.
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                                                          DB 1;
le+02;
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QBXG75;
15-JUN-2002 (Rel. 41, C
15-JUN-2002 (Rel. 41, L
15-JUN-2002 (Rel. 41, L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-JAL-1 / DSM 2661 / ATCC 43067;

MEDLINE-96337999; PubMed-8688087;

Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann R.D.;

Button G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D., Strong G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D., Strong G.G., Blake J.A., Tomb J.F., Adams M.D., Reich C.I., Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A., Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D., Strong G.G., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C., Cotton M.D., Roberts K.M., Hurst M.A., Kaine B.P., Borodovsky M., Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.;

"Complete genome sequence of the methanogenic archaeon, Methanococcus
SPECIES=S.typhimurium; STRAIN=LT2 / SGSC1412 / ATCC 700 MEDLINE=21534948; PubMed=11677609; McClelland M., Sanderson K.E., Spieth J., Clifton S.W., Courtney L., Porwollik S., Ali J., Dante M., Du F., Hou Leonard S., Nguyen C., Scott K., Holmes A., Grewal N., Ryan E., Sun H., Florea L., Miller W., Stoneking T., Nh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q58027;
01-NOV-1997
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                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                             NCBI_TaxID=602,
                                                                                                                                                                                                                                                         Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                      Salmonella typhi.
                                                                                                                                                                                                                                                                                                           Salmonella typhimurium,
                                                                                                                                                                                                                                                                                                                                                                Hypothetical
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Methanocaldococcaceae; Methanocaldococcus.
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16-OCT-2001
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SIMILARITY: TO C.ELEGANS D1054.13.
                                                                                                                                                                                                                                                                                                                                   thetical protein yfgC precursor. OR STM2494 OR STY2735.
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48683 MW;
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09AFBC5819613EF5 CRC64;
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  Clifton S.W., Latreille P., M., Du F., Hou S., Layman D..., Grewal N., Mulvaney E., oneking T., Nhan M.,
                                                                                                                                                                                                                                                            Enterobacteriaceae;
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SEQUENCE
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01-OCT-1996 (Rel.
15-JUN-2002 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Parkhill J., Dougan G., James K.D., Thomson N.R., Pickard D., Wain Churcher C., Mungall K.L., Bentley S.D., Holden M.T.G., Sebaihia M. Baker S., Basham D., Brooks K., Chillingworth T., Connerton P., Cronin A., Davis P., Davies R.M., Dowd L., White N., Farrar J., Feltwell T., Hamlin N., Haque A., Hien T.T., Holroyd S., Jagels K., Krogh A., Larsen T.S., Leather S., Moule S., O'Gaora P., Parry C., Duail M., Standard P., Parry C., Duail M., S., Consil M., Standard P., Parry C., Duail M., S., Consil M
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                                                                     Ishida S., Emori Y., Suzu
"Rat calpastatin has dive
calpastatins but retains
                                                                                                                       MEDLINE=91198152;
                                                                                                                                                                                                    Eukaryota; Metazoa; Mammalia; Eutheria; NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hypothetical SIGNAL
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                                                                                                                                            TISSUE-Liver;
                                                                                                                                                                                                                                                                                                Calpain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified and this statement
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enterica serovar Typhi CT18.";
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STRAIN=Fischer;
                   SEQUENCE
                                                       Biochim.
                                                                                                                                                                                                                                                              Rattus norvegicus (Rat).
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een the Swiss Institute of Bio
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5; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SG?????; yfgC.
; IPR001440; TPR.
                   OF 1-129
                                                  ., Emori Y., Suzuki K.;
constatin has diverged primary sequence for the but retains functionally important biophys. Acta 1088:436-438(1991).
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genome
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ome sequence
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                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
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487
342
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53740
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34, Last sequence up
41, Last annotation
(Calpastatin).
                                                                                                                             PubMed=2015306;
                   FROM
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Rodentia;
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                 N.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 32; DB Pred. No. 44; 3; Mismatches
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TPR 1.
TPR 2.
; 593FCFCC8DBC0CCE CRC64;
                   AND
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                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Rat
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                   ALTERNATIVE
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There are no restrictions
ng as its content is in
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Best Local S
Matches
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Blochim. Blophys. Acta 1129:251-253(1992).

-i. FUNCTION: Specific inhibition of calpain (calcium-dependent cysteine protease). Plays a key role in postmortem tenderiz of meat and have been proposed to be involved in muscle prodegradation in living tissue.

-i. ALTERNATIVE PRODUCTS: 3 ISOFORMS; A (SHOWN HERE), B AND C;
PRODUCED BY ALTERNATIVE SPLICING.

-i. DOMAIN: HAS FOUR INHIBITORY DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                       TCAL_MOUSE STANDARD; PRT; 788 AA. P51125; Q9RON1; Q9QXQA; Q9QXQA; Q1-QCT-1996 (Rel. 34, Created) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Calpain inhibitor (Calpastatin).
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                                                                                                                                                                                                                  SEQUENCE FROM N.A. (ISOFORMS MCS-A STRAIN-C3H; TISSUE-MUSCle; MEDLINE-99333681; PubMed-10403772;
                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REPEAT
REPEAT
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PIR; S15074; S15074.
InterPro; IPR001259; Calpain_inhib.
Pfam; PF00748; Calpain_inhib; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
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                    "Characterization
                                                                STRAIN-CD-
                                                                                     SEQUENCE FROM N.A.
                                                                                                                                    Blochem.
                                                                                                                                                                                                     Takano J.,
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149 201
282 334
392 445
529 582
529 582
620 39 76
102 102
654 AA; 713
                                                                                                                               Kawamura T., Murase M., Hitomi K., Maki M.; Of mouse calpastatin isoforms: Implications species-specific alternative splicing."; iophys. Res. Commun. 260:339-345(1999).
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                       of.
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Rodentia;
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                       ø
                       membrane
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INHIBITORY DOMAIN 2.
INHIBITORY DOMAIN 3.
INHIBITORY DOMAIN 4.
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Pred. No.
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MISSING (IN ISOFORM B AND ISOFORM C).
K -> E (IN REF. 1).
; 4970B89A19BDB19A CRC64;
                                                                                                                                                                                                                                                                     MCS-A;
                                                                                        TCAST1
                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                    associated testis-specific
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                                                                                        TCAST2).
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RESULT 10
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RL Biochim. Biophys. Acta 1129:251-253(1992).
CC ... FUNCTION: Specific inhibition of calpain (calcium-dependent cysteine protease). Plays a key role in postmortem tenderization CC of meat and have been proposed to be involved in muscle protein cysteine protease). Plays a key role in postmortem tenderization companies of the proposed companies of the protein cysteine products: 5 ISOFORMS; MCS-A (SHOWN HERE), MSC-B, MCS-C. TALTERNATIVE PRODUCTS: 5 ISOFORMS; MCS-A (SHOWN HERE), MSC-B, MCS-C. TALTERNATIVE SPECIFICITY: ISOFORM MCS-B IS THE MAJOR FORM IN ALL TISSUES CC -1-TISSUE SPECIFICITY: ISOFORM MCS-B IS THE MAJOR FORM IN ALL TISSUES CC EXAMINED. ISOFORM MCS-B ACCOUNTS FOR 5-10% IN TISSUES SUCH AS SKELETAL MUSCLE, LIVER AND BRAIN, AND 30% IN MYOBLASTS. ISOFORMS CI-SIMILARITY: BELONGS TO THE CALPASTATIN FAMILY.
                                                                                                                                                                                                  Query Match
Best Local S
Matches 6
           RECA_CLOAB
P58254;
16-OCT-2001
16-OCT-2001
16-OCT-2001
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REPEAT
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EMBL; AF190132; AAF25194.1; -.
EMBL; AF190151; AAF25193.1; -.
EMBL; X62519; CAA44385.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 84-363 FROM N.A. STRAIN-BALB/c; TISSUE-Heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (SEP-1999) to the [3]
                                                                                                                                                                                                                                                           SEQUENCE
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InterPro; IPR001259; Calpain_inhib.
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"Multiple forms of rat calpastatin
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          40, Created)
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MCS-C).
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                                                                                                                                                                                                                                                                                                                                  AQSAGYTRSSVPPKEKKRKVEEEVINDQALQALSDSLGTRQ
PDPPSHVSQAEQVK -> MGQFLSSTFWEGSPAAVWQEKLR
EGERKGAGETIPILQDHVICSEEREHGSKHH (IN
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                                                                                                                                                                                                                                                                          -> MGQFLSSTFWEGSPAAVWQEKLREGERKGAGETIPILQ
DH (IN ISOFORM TCAST2).
                                                                                                                                                                                                                                                                                                                      ISOFORM TCAST1)
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                                                                      349
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71;
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                                                                                                                                                                                                                               Length 788
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M TCAST2).
M MCS-B ANI
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P07754;
01-AUG-1988
01-AUG-1988
15-DEC-1998
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"Genome sequence and comparative analysis of the solvent-producing bacterium Clostridium acetobutylicum.";

J. Bacteriol. 183:4823-4838(2001).

-i- FUNCTION: CAN CATALYZE THE HYDROLYSIS OF ATP IN THE PRESENCE OF SINGLE-STRANDED DNA, THE ATP-DEPENDENT UPTAKE OF SINGLE-STRANDED DNA, AND THE ATP-DEPENDENT HYBROLIZATION OF DNA BY DUPLEX DNA, AND THE ATP-DEPENDENT HYBROLIZATION GRAND COUS SINGLE-STRANDED DNAS. IT INTERACTS WITH LEXA CAUSING ITS ACTIVATION AND LEADING TO ITS AUTOCATALYTIC CLEAVAGE (BY STMILARTTV).
                                                           Emericella nidulans
Eukaryota; Fungi; As
Eurotiales; Trichocc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
SEQUENCE FROM N.A. MEDLINE-86055769;
                                                                                                                                                                                                              EMENI
                                                                                                      ALCC OR ADH3.
                                                                                                                   Alcohol dehydrogenase
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00321; RECA_1; 1.
PROSITE; PS50162; RECA_2; 1.
PROSITE; PS50163; RECA_3; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00142; RECA.
ProDom; PD000229; RecA; 1.
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                    Complete proteome.
                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA damage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMART; SM00382; AAA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR003593; AAA_ATPase.
InterPro; IPR001553; RecA.
Pfam; PF00154; recA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AE007690; AAK79780.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-ATCC 824 / DSM 792 / VKM B-1787;
MEDLINE-21359325; PubMed-11466286;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RECA OR CAC1815.
Clostridium acetobutylicum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Cytoplasmic (By similarity). SIMILARITY: BELONGS TO THE RECA FAMILY.
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|| |||:
101 QYARALGV 108
                                                                                                                                                                                                                                                                                                                                Similarity 6; Conserv
                                                        Fungi; Ascomycot;
; Trichocomaceae;
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                                                                                                                                                                                                                                                                                                                                                                                           349 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                               DNA recombination; SOS response; ATP-binding; DNA-binding;
                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                             STANDARD;
                                                                          Ascomycota;
PubMed=2998782
                                                                                       (Aspergillus nidulans)
                                                                                                                                                                                                                                                                                                                                                                                          38089 MW;
                                                                                                                                                                                                                                                                                                                                                                                                         72
                                                                                                                                                                                                                                                                                                                                              70.5%;
75.0%;
                                                                                                                Last sequence update)
Last annotation update)
III (EC 1.1.1.1) (ADH I
                                                                                                                                                              Created)
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                                                           Emericella
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Pred. No.
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                                                                       Pezizomycotina;
                                                                                                                                                                                             PRT;
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51;
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                                                                                                                   III).
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                                                                       Eurotiomycetes;
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Best Local
           STRAIN=MB4 / JCM 11007;

MEDLINE-21992816; PubMed-11997336;

Bao Q., Tian Y., Li W., Xu Z., Xuan Z., Hu S., Dong W., Yang J.,
Chen Y., Xue Y., Xu Y., Lai X., Huang L., Dong X., Ma Y., Ling L.,
Tan H., Chen R., Wang J., Yu J., Yang H.;
"A complete sequence of T. tengcongensis genome.";
Genome Res. 12:689-700(2002).
-i- FUNCTION: Converts 2C-methyl-D-erythritol 2,4-cyclodiphosphate
(ME-2,4cPP) into 1-hydroxy-2-methyl-2-(E)-butenyl 4-diphosphate
(BY Similarity).
-i- PACHWAY: Nonmevalonate terpenoid biosynthesis pathway; sixth ste-
-i- SIMILARITY: BELONGS TO THE ISPG FAMILY.
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                             Thermoanaerobacter tengcongensis. Bacteria; Firmicutes; Clostridia;
                                                                                                                                                                                                                                                                                                                                                                                                                       Q8RA30;
15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
1-hydroxy-2-methyl-2-(E)-butenyl 4-diphosphate synthase.
ISPG OR GCPE OR TIE1400.
                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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Pfam; PF00107; adh_zinc; 1.
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InterPro; IPR002328; ADH_zinc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      McKnight L., Kato H., Upshall A., Parker M.D., O'Hara P.J., O "Identification and molecular analysis of a third Aspergillus nidulans alcohol dehydrogenase gene."; EMBO J. 4:2093-2099(1985).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBUNIT: HOMOTETRAMER.
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067223;
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30-MAY-2000 (Rel. 39, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
ATP phosphoribosyltransferase regulato
HISZ OR HISS2 OR AQ_1155.
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                             TIGRFAMS;
Histidine
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NCBI_TaxID-63363;
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                                               InterPro; IPR002106; AAtRNA_11gaseII.
InterPro; IPR004517; HisS_second.
InterPro; IPR002314; tRNA-synt_2b.
Pfam; PF00587; tRNA-synt_2b; 1.
TIGRFAMS; TIGR00443; hisS_second; 1.
                                                                                                                                                                            EMBL; AE000726; AAC07188.1;
HSSP; P04804; 1KMM.
                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
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20-MAR-1987 (Rel. 04, Last sequence update)
20-MAR-1987 (Rel. 04, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Penicillin-binding protein 5 precursor (D-alany1-D-alanine carboxypeptidase fraction A) (EC 3.4.16.4) (DD-peptidase)
(DD-carboxypeptidase) (PBP-5)
DACA OR PFV OR B0632 OR 20777 OR ECS0670.
Escherichia coli, and
Escherichia coli, and
Escherichia coli (0157:H7.
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MEDLINE=97426617; PubMed=9278503;
Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland
Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.
Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F.
                                                                                                                                                                                                                                                                            Sampei G., Seki Y., Tagami H., Take Yano M., Horiuchi T.;
"A 718 kb DNA sequence of the Esche corresponding to the 12.7-28.0 min DNA Res. 3:137-155(1996).
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                        SEQUENCE FROM N.A.
STRAIN-0157:H7 / EDL933 / ATCC 700
MEDLINE-21074935; PubMed-11206551;
Perna N.T., Plunkett G. III, Burla
                                                                                                                                                                                                             SEQUENCE FROM N.A. Chung E., Allen E.
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Broome-Smith J.K., Ioannidis I., Edelman A., Spr
Nucleotide sequences of the penicillin-binding
of Escherichia coli.";
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Lin D., Namath
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n R., Kalman S., Komp C., Kurdi

Oefner P., Roberts D., Schramm S

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B., Glasner J.
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CELL WALL PRECURSORS.

1-1- CATALYTIC ACTIVITY: D-alanyl-D-alanine + H(2)0 = 2 D-alanine.

1-1- CATALYTIC ACTIVITY: D-alanyl-D-alanine + H(2)0 = 2 D-alanine.

1-1- PATHWAY: FINAL STAGES IN PEPTIDOGLYCAN SYNTHESIS.

1-1- SUBCELLULAR LOCATION: INNER MEMBRANE-ASSOCIATED. N-TERMINAL LIES IN THE PERTPLASMIC SPACE.

1- MISCELLANEOUS: THE MUTANT DACA1191 IS STILL BINDING PENICILLIN, BUT IS BLOCKED IN THE RELEASE OF THE BOUND PENICILLOYL MOIETY; MUTANT ALSO FAILS TO CATALYSE THE D-ALANINE CARBOXYPEPTIDASE REACTION AS THE HYDROLYSIS OF THE ACYL-ENZYME FORMED WITH SUBSTRATE IS ALSO BLOCKED AND THE ACYL-ENZYME ACCUMULATES.

1- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S11; ALSO KNOWN AS THE D-ALANYL-D-ALANINE CARBOXYPEPTIDASE 1 FAMILY.
                                                                                                                                                                                                                                                                                 "Domain organization of penicillin-binding coli analysed by C-terminal truncation."; Biochem. J. 289:593-598(1993).
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MEDLINE-21156231; PubMed-11258796;
Hayashi T., Makino K., Ohnishi M., Kurokawa K., Ishii K., Yokoy, Hayashi T., Makino E., Nakayama K., Murata T., Tanaka M., Tobe '. Iida T., Takami H., Honda T., Sasakawa C., Ogasawara N., Yasunat Kihara S., Shiba T., Hattori M., Shinagawa H.; "Complete genome sequence of enterohemorrhagic Escherichia coli 0157:H7 and genomic comparison with a laboratory strain K-12."; BNA Res. 8:11-22(2001).
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J. Biol. Chem. 267:11386-11391(1992).
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"Amino acid sequence homologies between Escherichia
binding protein 5 and class A beta-lactamases.";
FEBS Lett. 139:159-163(1982).
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Matsuzawa H., Ohta T., Matsuhashi M.;
"Genes encoding two lipoproteins in the
Escherichia coli chromosome.";
J. Bacteriol. 169:5692-5699(1987).
                                                                                                                                                                                                                                                                                                                                                              MEDLINE=93143736; PubMed=8424800;
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MEDLINE-8410878; PubMed=6319180;
Broome-Smith J.K., Spratt B.G.;
"An amino acid substitution that blocks the deacylation step in enzyme mechanism of penicillin-binding protein 5 of Escherichia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Grotbeck E.J.; Davis N.W., Lim A., Dimalanta E.T., Potamousis K., Apodaca J., Anantharaman T.S., Lin J., Yen G., Schwartz D.C., Welch R.A., Blattner F.R.;
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MEDLINE-20150912; PubMed-10688204;
MEDLINE-20150912; Medline-2016, Medl
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                           reveals hypervariable sequences."; Nature 403:665-668(2000).
-!- FUNCTION: Not known.
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15-JUN-2002 (Rel. 41, Last
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Glucose inhibited division
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L; M18276; AAA24553.1; -.
L; AE000168; AAC73733.1; -.
L; D90703; BAA35275.1; -.
L; D90704; BAA35279.1; -.
L; U82598; AAB40832.1; ALT_INIT.
L; AE0005242; AGC54966.1; -.
L; AE002552; BAB34093.1; -.
L; AD02552; BAB34093.1; -.
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1: sp_archea:*
2: sp_bacteria
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Q240Z0
Q9HDD6
Q9AGZ2
Q9RXM0
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Q9E6Q8
Q9FXE9
Q8FXE9
Q8R8F67
Q8E763
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Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V.,	KODAYAShi Y., Koetter P., KoningStein G., Krogh S., Kumano M.,	COLLS B., Naralliaca D., Nasaliata I., Naeti Enaliciata M., Naeti C.,	There is a construction of the construction of	Hilbert W Wolsens & Hosens & Hallo ME Itava W Tones I.	Guiseppi G., Guy B.J., Haga K., Haiech J., Harwood C.R., Henaut A.,	Ghim S.Y., Glaser P., Goffeau A., Golightly E.J., Grandi G.,	FILZ C., FUJICA M., FUJICA I., FUMA S., GATIZZI M., GATIETOM M.,	British C British V British C Califer A Call Crop N	Entian & D. Errington J. Fabret C. Ferrari E. Roulger D.	Denizot F., Devine K.M., Dusterhoft A., Ehrlich S.D., Emmerson P.T.,	Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A.,	Brouillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M.,	Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bron S.,	Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S.,	Kunst F., Ogasawara N., Moszer I., Albertini A.M., Alloni G.,	MEDLINE=98044033; PubMed=9384377;	STRAIN=168;	SEQUENCE FROM N.A.	[2]	Mol. Gen. Genet. 256:63-71(1997).	"Characterization of an lrp-like (lrpC) gene from Bacillus subtilis.";	Kasahara Y., Alonso J.C., Le Hegarat F.;	Beloin C., Ayora S., Exley R., Hirschbein L., Ogasawara N.,	MEDLINE=98000887; PubMed=9341680;	STRAIN=168;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=1423;	Bacillaceae; Bacillus.	Bacteria; Firmicutes; Bacillus/Clostridium group; Bacillales;	Bacillus subtilis.	YDFL.	_	(TrEMBLrel, 20, Last	(TrEMBLiel. 05,	1997 (TrEMBLrel.		P96690 PRELIMINARY; PRT; 270 AA.	190 1

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RA Medina N., Mellado R.P., Mizuno M., Moestl D., Nakai S., Noback M.,

RA Noone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H.,

RA Parro V., Pohl T.M., Portetelle D., Porwollik S., Prescott A.M.,

RA Presecan E., Pujic P., Purnelle B., Rapoport G., Rey M., Reynolds S.,

RA Rieger M., Rivolta C., Rocha E., Roche B., Rose M., Sadaie Y.,

RA Sato T., Scanlan E., Schleich S., Schroeter R., Scoffone F.,

RA Sekiguchi J., Sekowska A., Seror S.J., Seror P., Shin B.S., Soldo B.,

Sorokin A., Tacconi E., Takagi T., Takahashi H., Takemaru K.,

RA Sorokin M., Tamakoshi A., Tanaka T., Terpstra P., Tognoni A.,

RA Tosato V., Uchiyama S., Vandenbol M., Vannier F., Vassarotti A.,

RA Viari A., Wambutt R., Wedler E., Wedler H., Weitzenegger T.,

RA Viari A., Wipat A., Yanamoto H., Yamane K., Yasumoto K., Yata K.,

*The complete genome sequence of the gram-positive bacterium Bacillus
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                                                                                                    Submitted (DEC-2001) to the EMBL/GenBank/DDB EMBL: BC019504, AAH19504.1; -
InterPro; IPRO01680; WD40.

Pfam; PF00400; WD40; 12.

PFAM; PF00320; GPROTEINBRPT.

PRNITS; PR00320; WD40; 13.

PROSITE; PS00678; WD_REPEATS_1; UNKNOWN_2.

PROSITE; PS50082; WD_REPEATS_2; 9.

PROSITE; PS50094; WD_REPEATS_REGION; 1.
                                                                                                                                                                                                                                                                                 Hypothetical 88.4 kDa protein.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; (Mammalia; Eutheria; Rodentia;
                                                                                Hypothetical
SEQUENCE 8
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SMART; SM00422; HTH_MERR; 1.
DNA-binding; Transcription regulation; Complete DNA-binding; Transcription regulation; Complete SEQUENCE 270 AA; 31783 MW; 1C487674F59A6797
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Submitted (NOV-1997) to
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
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EMBL; AB001488; BAA19380.1; EMBL; Z99106; CAB12353.1; -...
EMBL; Z99106; IPR000551; HTH_Mer
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[3]
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, Mizuno M., Moestl D., Nakai S., Noback ...,
, Ogiwara A., Oudega B., Park S.H.,
Per M., Reynolds
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   EP SEQUENCE FROM N.A.

(CSTRAINEMSB8 / DSM 3109;

(CSTRAINEMSB8 / DSM M.L., Dodson R.J.,

(CALCAN MEDLINE 99287316; PubMed-1036071;

(CALCAN MELSON K.E., Clayton R.A., Melson W.C., Ketchum K.A.,

(CALCAN M.A., Peterson J.D., Nelson W.C., Ketchum K.A.,

(CALCAN M.A., Melson W.C., Ketchum K.A., Linher K.D., Garrett M.M.,

(CALCAN M.A., Melson W.C., Ketchum K.A., Richardson D.,

(CALCAN M.A., Cotton M.D., Pratt M.S., Phillips C.A., Richardson D.,

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01-NOV-1999
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pfam; pr00400; wD40; 13.

pr0SITE; pr00678; wD_REPEATS_1; UNKNOWN_2.

pr0SITE; pr50082; wD_REPEATS_2; 8.

pr0SITE; pr50294; wD_REPEATS_REGION; 1.

Hypothetical protects; Repeat; wD repeat.

Hypothetical protects; Repeat; wD repeat.

SEQUENCE 808 AA; 89034 MW; 01BDF217F8D17D30 CRC64;
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Submitted (JUL-2001)
-!- SIMILARITY: CONT.
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01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence up
01-JUN-2002 (TrEMBLrel. 21, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Thermotogae;
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Submitted (SEP-2001)
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L; BC014007; AAH14007.1;
L; BC010231; AAH10231.1;
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SEQUENCE 80 AA; 9127 MW; B1802
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"The evolution of cryptochrome genes.";
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ
EMBL; AJ000695; CAA04247.1;
InterPro; IPR005101; FAD_binding_7.
Pfam; PF03441; FAD_binding_7; 1.
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01-JAN-1998 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
Cryptochrome (Fragment).
Suvarna K., Bartiss A., Wong B.;
"Mannitol-1-phosphate dehydrogenase from Cryptococcus neoformans
"Inc-containing long-chain alcohol/polyol dehydrogenase.";
Microbiology 146:2705-2713(2000).
EMBL; AF186474; AAG17013.1; -.
                                                                                                           SEQUENCE FROM N.A.
STRAIN-H99;
MEDLINE-20476444; PubMed-11021946;
                                                                                                                                                                                                                            Cryptococcus neoformans var. Eukaryota; Fung1; Basidiomycc Tremellomycetidae; Tremellale
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;

Astoridae; euasterids I; Solanales; Solanaceae; Solanum.
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    Tremellales; Tremellaceae; F'
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01-JUN-2002 (TrEMBLrel. 21, La.
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SEQUENCE
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Ohashi N., Rikihisa Y., Unver A.;
"Analysis of Transcriptionally Active Gene Clusters of Major Outer
"Analysis of Transcriptionally in Ehrlichia canis and E.
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TICRRAMS; TIGRO1161; purK; 1.
SEQUENCE 363 AA; 40744 MW;
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VCE 361 AA; 37537 MW;
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Deinococcus radiodurans. Bacteria; Thermus/Deinococcus

group;

Deinococci; Deinococcales;

DR0290 Hypothetical

Last sequence update)
Last annotation updat

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protein

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RESULT 10
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Best Local S
Matches 7
                                                                                                                                                                                 Matches
                                                                                                                                                                                                         Query Match
Best Local :
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EMBL; AF130426; AAF72557.1; ---
EMBL; AF130425; AAF72556.1; ---
InterPro; IPR000474; DNA_photolyase.
InterPro; IPR002081; DNA_photolyase.
InterPro; IPR002081; FAD_binding_7.

Pfam; PF00875; DNA_photolyase; 1.

Pfam; PF00875; DNA_photolyase; 1.
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Q9LDJ5;
01-OCT-2000
                                                                                                                                                                                                                                                                  PRINTS; PRO0147; DNAPHOTLYASE.
PRODOM; PD004390; DNA_Photolyase; 1.
PROSITE; PS00394; DNA_PHOTOLYASES_1_1; 1.
SEQUENCE 635 AA; 72249 MW; 937445E04DB86D6B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lycopersicon esculentum (Tomato).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids I; Solanales; Solanaceae; Solanum.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Perrotta G., Ninu L., Nebuloso E., Giuliano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=20267445; PubMed=10809448; Perrotta G., Ninu L., Flamma F., W
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cryptochrome
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Science 286:1571-1577(1999).
EMBL; AE001890; AAF09871.1;
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01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-4081;
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NCBI_TaxID=1299;
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406 AA; 4;
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Pred. No.
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Best Local S
Matches 6
Pfam; PFC
Helicase.
                   Tulman E.R., Afonso C.L., Lu Z., Zsak L., Roc) Submitted (MAR-2000) to the EMBL/GenBank/DDBJ EMBL; AF243438; AAG14200.1; -. InterPro; IPR004996; Herpes_HEPA. Pfam; PF03324; Herpes_HEPA; 1.
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"The complete unique long sequence and the overall genomic
organization of the GA strain of Marek's disease virus.";
Proc. Natl. Acad. Sci. U.S.A. 97:6091-6096(2000).

EMBL; AF147806; AAF66744.1;
EMBL; AF147806; AAF66744.1;
InterPro; IPR002064; DNA_POL_B.
InterPro; IPR004996; Herpa, HEPA.
Pfam; PR03324; Herpes_HEPA; 1.

PROSITE; PS00116; DNA_POLYMERASE_B; UNKNOWN_1.

PROSITE; PS00116; DNA_POLYMERASE_B; UNKNOWN_1.
                                                                                                                                                                                                   Tulman E.R., Afonso C.L., Lu Z., 2sak I "The genome of a very virulent Marek's J. Virol. 74:7980-7988(2000).
                                                                                                                                                                                                                                                                                                                                                                                        Turkey herpesvirus.
Viruses; dsDNA viruses,
Alphaherpesvirinae; Mar
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01-MAR-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
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01-OCT-2000
01-JUN-2002
                                                                                                                                  STRAIN-MD5;
                                                                                                                                                                                                                                                                                                    STRAIN-MD5;
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Jones D., Lee L., Liu J.L., Kung H.J., Tillotson J.K.;
"Marek disease virus encodes a basic-leucine zipper gene resembling the fos_jun oncogenes that is highly expressed in lymphoblastoid
                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                          MEDLINE=20392152; PubMed=10933706;
                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9E6Q8;
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Viruses; dsDNA viruses,
Alphaherpesvirinae; Maro
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16, Last sequence update)
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e associated protein-like pr
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s disease-like viruses.
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                                                                                                           Rock
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overall genomic
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AA Altafi H., Nguyen M., Lam B., Schthwick A., Miranda M., Brooks S.,

AA Buehler E., Chao Q., Chin C., Chiou J., Choi E., Gonzalez A.,

AA Howng B., Johnson-Hopson C., Khan S., Kim C., Koo T., Lee J.M.,

AA Toriumi M., Vaysberg M., Yu G., Ecker J., Theologis A., Davis R.W.;

AA Toriumi M., Vaysberg M., Yu G., Ecker J., Theologis A., Davis R.W.;

AA Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.

REMBL; AC008030; AAG10622.1; *.

RINTERPO; IPR000719; Euk_pkinase.

RINTERPO; IPR003591; LRR.

DR InterPro; IPR003591; LRR_typ.

INTERPPO; IPR003591; LRR_typ.

INTERPPO; IPR003591; LRR_typ.

RINTERPO; IPR001245; Tyr_pkinase.

RINTERPO; IPR001245; Tyr_pkinase.

RINTERPO; IPR001245; Tyr_pkinase.

RINTERPO; IPR001245; Tyr_pkinase.

REMBL; PF00560; LRR; 7.

PRINTS; PR00019; INTERPOT
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Matches 7
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01-MAR-2001 (TrEMBLrel. 10
01-MAR-2001 (TrEMBLrel. 11
01-JUN-2002 (TrEMBLrel. 2
Putative receptor-like s
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PRODOM; PD000001; EUR_PKINASE; 1
SWART; SM00370; LRR; 5.
SWART; SM00369; LRR_TYP; 2.
SWART; SM00221; STYKC; 1.
SWART; SM00220; STYKC; 1.
SWART; SM00220; TYCKC; 1.
SWART; SM00220; TYCKC; 1.
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eueurosids II; Brassicales; Brassicaceae; Arabidopsis.
  Q8XK60;
01-MAR-2002
                                                Q8XK60
                                                                                                                                                                                                                                                                                                                                                   Kinase; Receptor.
NON_TER 1013 10
SEQUENCE 1013 AA;
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A., Palm C.J.,
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PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
PROSITE; PS00108; PROTEIN_KINASE_ST; 1.
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    (TrEMBLrel..20,
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66.78;
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16, Last sequence update)
21, Last annotation update)
serine/threonine kinase-partial
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Pred. No.
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Pred. No.
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Q8R8F7
ID 08R8B
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Q8ZT63
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flesh-eater.";
Proc. Natl. Acad. Sci. U.S.A. 99
EMBL; AP003191; BAB81249.1; -.
InterPro; IPR004472; BioD.
TIGRFAMS; TIGR00347; bioD; 1.
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01-JUN-2002 (TrEMBLrel. 21, Cr
01-JUN-2002 (TrEMBLrel. 21, La
01-JUN-2002 (TrEMBLrel. 21, La
01-JUN-2002 (TrEMBLrel. 21, La
Q8ZT63;
Q8ZT63;
01-MAR-2002
01-MAR-2002
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Racteria; Pirmicutes; Bacillus/Clostridium group; Clostridia;

Parteria; Clostridiaceae; Clostridium.
                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-MB4T / JCM11007;
MEDLINE-21992816; PubMed-11997336;
Bao Q., Tian Y., Li W., Xu Z., Xuan Z., Hu S., D
Chen Y., Xue Y., Xu Y., Lai X., Huang L., Dong X
Tan H., Chen R., Wang J., Yu J., Yang H.;
"A complete sequence of T. tengcongensis genome.
Genome Res. 12:689-700(2002).
EMBL; AE013154; AAM25220.1; ".
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                                                                                                                                                                                                                                                                                                                                                                    EMBL; AE013154; AAM252
Hypothetical protein;
SEQUENCE 301 AA; 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shimizu T., Ohtani K., Hirakawa H., Ohshima K., Yamashi
Shiba T., Ogasawara N., Hattori M., Kuhara S., Hayashi
"Complete genome sequence of Clostridium perfringens, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOD OR CPE1543
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Bacteria; Firmicutes; Bacillus/Clostridium group; Clostridia;
Thermoanaerobacteriales; Thermoanaerobacteriaceae; Thermoanae
NCBI_TaxID=119072;
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Yang J.

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Gaps

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DT 01-JUN-2002 (TPEMBLrel. 21, Last annotation update)

E Hypothetical protein PAE3418.

OS PAE3418.

OS PAE3418.

OS PYTOBACULUM aerophilum.

OC Archaes: Crenarchaeota; Thermoprotei; Thermoproteales;

OC Thermoproteaceae; Pyrobaculum.

OX NCBL_TaxID=13773;

RN [1]

RN [2]

RN FILT-SIDD-13773;

RN FILT-SIDDON N.A.

RC STRAIN-IM2 / ATCC 51768 / DSM 7523;

RN FULT-SIDDON S.T., Ladner H., Kim U.-J., Stetter K.O., Simon M.I.,

RN FILT-Gibbon S.T., Ladner H., Kim U.-J., Stetter K.O., Simon M.I.,

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RA FILT-G
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GenCore version 5.1.6 (c) 1993 - 2003 Compu

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Result
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232.223 Million cell updates/sec
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ABB74947	AAY72652	AAB11315	AAY41030	AAE14266	AAY04120	AAW48391	ABB74946	AAY72651	AAB10954	AAB10953	AAB11314	AAY25926	AAY41029	AAY28644	AAY72661	ABB48359	AAU78359	AAB48382	AAR13493	AAU78357	AAU78358	ABB77879	AAG92577	ABG24021	AAB31515	AAB99057	ABG28280	AAY01601	AAM47207	ABB53280	AAB93480	818	8307	AAG64286
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ALIGNMENTS

RESULT 1 AAR57112

AAR57112 standard; peptide; 20

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Human megakaryocyte differentiation factor peptide

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16-AUG-1994 (first entry)

AAR57112;

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EP583884-A.
                                                                                                                                                             Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                       17-JUL-1992;
04-MAR-1993;
                                                                                                                                               Homo sapiens
Ishida N, Iwasa F,
              (SUNR ) SUNTORY LTD. (TSUJ/) TSUJIMOTO M.
                                                               19-JUL-1993;
                                                                               23-FEB-1994.
                                                                                                                       Misc-difference
                                      92JP-0212305
93JP-0067339
                                                               93EP-0305654
                                                                                                                       Location/Qualifiers
                                                                                                              /note= "not determined"
Kurihara T,
Miura K,
Nakazato H;
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Murine megsin prot Rat megsin protein Rat megsin protein

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RESULT 2
AAR48379
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
   Human MDF can be isolated
                         Claim
                                                        New megakaryocyte differentiation factor - isolated epidermoid carcinoma cells, used to treat conditions
                                                                                                                                                                                              17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of II-3. The MDF acts in vivo as a thrombopoietin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                          N-PSDB;
                                                                                                      WPI; 1994-058782/08.
                                                                                                                                                                                                                              19-JUL-1993;
                                                                                                                                                                                                                                                                            EP583884-A.
                                                                                                                                                                                                                                                                                                                              Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet;
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                                                                                                                           Tsujimoto M,
                                                                                                                                      Ishida N,
                                                                                                                                                                                                                                                      23-FEB-1994.
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                                                                                                                                                            (SUNR ) SUNTORY LTD.
(TSUJ/) TSUJIMOTO M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                      marrow transplantation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1994-058782/08
                       7; Page
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M, Tsuruoka
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                                             platelets
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                      30-32; 47pp; English.
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93JP-0067339
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                                                                                                                                                                                                                                                                                                                      cancer chemotherapy.
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Pred. No. 5e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                n factor - isolated from human to treat conditions involving
of human epidermoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yamaichi
                                                        conditions
                                                                                                                           Nakazato
maichi K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Σ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                  from human
                                                                                                                                     Η;
                                                       involving
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
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RESULT 4 AAB24142

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                                                                                        RESULT 3
AAY08254
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                                            Matches
                                                      Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                           This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells, such as IgA nephropathy.
                                                                                       Sequence
                                                                                                                                                                               Claim 1; Page 62-64; 100pp; Japanese
                                                                                                                                                                                                                            WPI; 1999-276983/23.
N-PSDB; AAX56712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE and exhibits an isoelectric point of 6.0-7.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number
                                                                                                                                                                                                      Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                             Miyata
                                                                                                                                                                                                                                                                                                                    22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                          22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                 01-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                       WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY08254;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY08254 standard;
                                                                                                                                                                                                                                                                                 (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                            Megsin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                   numan;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   rat;
                                            19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                   mesangial cell;
rat; murine.
           ADLSGIASGGRLYISRMMGK 20
ADLSGIASGGRLYISRMMHK 324
                                                                                        380 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380 AA;
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                     97JP-0275302
                                                                                                                                                                                                                                                                                                                                          98WO-JP04269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein; 380
                                                      91.8%;
95.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                            treatment; diagnosis; disease; IgA nephropathy;
                                           0;
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Pred. No. 2.76
0; Mismatches
                                                      Score 90; I
Pred. No. 2.
                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA.
                                                      DB 20;
2.7e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.7e-06;
ches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15;
                                                                Length 380;
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                                            Indels
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                                           0
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                                            Gaps
                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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AAB83075
AAB83075
ID AAB8
XX AAB8
AC AAB8
XX IO-J
DT 10-J
XX Huma
XX Huma
XX Huma
XX
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                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                diaghosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the human megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the process is useful for evaluating renal function and the proce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-611642/58.
N-PSDB; AAA99294.
               Human; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
                                                                 Human megsin protein
                                                                                                10-JUL-2001
                                                                                                                                AAB83075
                                                                                                                                                             AAB83075 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 2; Page 66-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Evaluating renal function comprises assaying megsin biological sample -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-SEP-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JAN-2001
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                                                                                                                                                                                                                                             305
                                                                                                                                                                                                                                                                           \vdash
                                                                                                                                                                                                                                                                                                       19; Conservative
                                                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein sequence
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                                                                                             (first entry)
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99JP-0306623.
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                                                                                                                                                                                                                                                                                                                        91.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93pp; Japanese
                                                                                                                                                             380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380
                                                                                                                                                                                                                                                                                                       Score 90; DB
Pred. No. 2.76
0; Mismatches
                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO:2.
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                                                                                                                                                                                                                                                                                                    DB 21; LC
. 2.7e-06;
. 7 1;
                                                                                                                                                                                                                                                                                                                                     Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein
                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 6
AAY08256
ID AAY0
   PARK TRANSPORT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local
                                                                                                                                                                                           Key
Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Miyata T;
                                                                                                            01-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-300136/31.
N-PSDB; AAF82438.
                                                                              22-SEP-1998;
                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                       Megsin; mesangial cell;
                                                                                                                                                                                                                                                                                                                      Mouse megsin protein
                                                                                                                                                                                                                                                                                                                                                        14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                       AAY08256;
                                                                                                                                                                                                                                                                                                                                                                                                                      AAY08256 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               this method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-ocr-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-OCT-2000; 2000WO-JP06988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
(KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                              22-SEP-1997;
                                                                                                                                            WO9915652-A1
                                                                                                                                                                                                                                                                           human; rat; murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ADLSGIASGGRLYISRMMGK 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADLSGIASGGRLYISRMMHK 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                380 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99JP-0285736
                                                .97JP-0275302
                                                                                98WO-JP04269
                                                                                                                                                                                            Location/Qualifiers
1..368
                                                                                                                                                                            /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                       368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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Example 4; Page 44-46; 62pp; Japanese
                                                                                Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments \,
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sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is usefu for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases Highly uniform models can be made easily and in large numbers using The present sequence is human megsin. The human megsin coding useful

Score 90; DB Pred. No. 2.76 0; Mismatches DB 22; 2.7e-06; Length 380 Indels 0 Gaps 0

treatment; diagnosis; disease; IgA nephropathy;

"partial sequence"

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RESULT 7
AAB24151
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Best Local S
Matches 16
       The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and
                                                                                                                                                                                                                                                                                                                                                                                         Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                     Evaluating renal function comprises assaying megsin protein biological sample .
                                                                                                                                                        N-PSDB;
                                                                                                                                                                                          Miyata T;
                                                                                               Disclosure;
                                                                                                                                                                      WPI;
                                                                                                                                                                                                                 (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                 17-MAR-2000;
                                                                                                                                                                                                                                                                                                                          28-SEP-2000
                                                                                                                                                                                                                                                                                                                                              WO200057189-A1
                                                                                                                                                                                                                                                                                                                                                                       Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Mouse megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB24151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24151 standard; Protein; 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in messangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving messangial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAX56714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cells,
 a magnet.
                                                                                                                                                                    2000-611642/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         293
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein expressed specifically in mesangial cells
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||||||||||||||||:|::| |
ADLSGIASGGRLYVSKLMHK 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 76-79; 100pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     368
                                                                                           Page 89-91; 93pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          protein
                                                                                                                                                                                                                                                                                                 2000WO-JP01646
The process
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                             99JP-0075305.
99JP-0306623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.7%;
80.0%;
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  useful
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No 3;
for evaluating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 20;
3.4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 368;
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B 64

293

ADLSGIASGGRLYISRMMGK

20 312 Query Match Best Local : Matches 1

16; Conservative

84.7%;

; Score 83; DB Pred. No. 3.4e 3; Mismatches

DB 22; | 3.4e-05; hes 1;

Length

Indels

0,

Gaps

0,

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RESULT 8
AAB83077
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                 for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                      The present sequence is murine megsin protein. The human megsin coding sequence may be introduced into a mouse to groduce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useful
Sequence
                                                                                                                                                                                                                                                                                  (KURO/)
                                                                                                                                                      Disclosure;
                                                                                                                                                                             Mouse model for mesangial cell proliferative nephritis and screening of new treatments -
                                                                                                                                                                                                                    WPI; 2001-300136/31
N-PSDB; AAF82440.
                                                                                                                                                                                                                                                                                                                                                                                                                             Mus
                                                                                                                                                                                                                                                          Miyata T;
                                                                                                                                                                                                                                                                                                                         06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                 06-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                     WO200124628-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Murine megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB83077;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the mouse megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                           12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB83077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16;
                                                                                                                                                                                                                                                                                  KUROKAWA K.
MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADLSGIASGGRLYVSKLMHK 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADLSGIASGGRLYISRMMGK
368 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         368 AA;
                                                                                                                                                     Page 52-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                 2000WO-JP06988.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein
                                                                                                                                                                                                                                                                                                                         99JP-0285736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.7%;
                                                                                                                                                 62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 83; DB
Pred. No. 3.46
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .4e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 368;
                                                                                                                                                                                           for
                                                                                                                                                                                        development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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ARESULT 10
AAB24150
ID AAB24
XX AAB24
X
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AAYOB255
ID AAYOB255

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This invention describes the isolation of novel megsin nucleic acid an proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                     Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                       Misc-difference
                                                                                               Location/Qualifiers Misc-difference 51
                                                                                                                                                                                                                                 Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rat megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB24150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB24150 standard; Protein; 380 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 69-72; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-276983/23.
N-PSDB; AAX56712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Megsin; mesangial cell; treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rat megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY08255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY08255 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human; rat; murine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           305
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                                                                                                                                                                                                                                 norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l Similarity
16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   380
                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein sequence SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ξ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-JP04269
                                       94
/note= "unspecified"
                                                                       note- "unspecified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 83; DB
Pred. No. 3.6e
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Å
                                                                                                                                                                                                                                                                                                                                                                                                                                                           NO:19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 20;
3.6e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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                                                                                                         Matches
                                                                Query Match
Best Local
                                                                                                                              The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the rat megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                             Evaluating renal function comprises assaying megsin protein biological sample
                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-611642/58
N-PSDB; AAC55238.
                                                                                                                                                                                                                                                                                                                                                                                                              Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (KURO/)
                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                   Example 2; Page 81-84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-MAR-2000; 2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200057189-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                      (MIYA/)
                                                                Local Similarity
305
                                                      16;
                                                                                                                                                                                                                                                                                                                                                                                                                                       KUROKAWA K.
FUSO PHARM IND LTD
MIYATA T.
            ADLSGIASGGRLYISRMMGK 20
ADLSGIASGGRLYVSKLMHK 324
                                                                                                         380 AA;
                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99JP-0075305
99JP-0306623
                                                                84.7%;
                                                                                                                                                                                                                                                                                                93pp; Japanese.
                                                   ω
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                                                                 Score 83;
Pred. No.
                                                    Mismatches
                                                                DB 21;
3.6e-05;
                                                                            Length 380;
                                                      Indels
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                                                   Gaps
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0

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RESULT 11
AAG64286
WO200148019-A1
                                                                                       Rattus norvegicus
                                                                                                    Rat; megsin; renal mesangial cell;
                                                                                                                   Rat megsin protein.
                                                                                                                                 21-SEP-2001
                                                                                                                                              AAG64286;
                                                                                                                                                            AAG64286
           (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                 28-DEC-1999;
                                              26-DEC-2000;
                                                            05-JUL-2001.
                                                                                                                                                            standard; Protein; 380 AA
                                              2000WO-JP09251
                                                                                                                                (first
                                 99JP-0373677
                                                                                                                                 entry)
                                                                                                     mesangium
                                                                                                    proliferative nephritis.
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Miyata T;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
         complex and an increase in mesangial cells. The animal model is useful for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                   The present sequence is rat megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune
                                                                                                                                                                                                                                                 (KURO/)
                                                                                                                        Disclosure;
                                                                                                                                            Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments
                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus
                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                       06-OCT-1999;
                                                                                                                                                                                                                                                                                                              06-OCT-2000;
                                                                                                                                                                                                                                                                                                                                       12-APR-2001
                                                                                                                                                                                                                                                                                                                                                               WO200124628-A1
                                                                                                                                                                                                                                                                                                                                                                                                              transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rat megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB83076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB83076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to a novel antibody which recognises a peptide consisting of residues 341-354 of rat megsin protein. The prese sequence is the protein sequence for rat megsin, which was used in the present invention. Mesgin is highly expressed in renal mesangial cells and its level is elevated in mesangium proliferative nephritis. Assay of the serum or urine level using the antibody is therefore indicative of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 54-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New antibody recognizing a partial sequence of diagnosis of mesangium proliferative nephritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              serum or urine level using the stype of disorder.
                                                                                                                                                                                                                                                                                                                                                                                                         megsin; mesangial cell proliferative nephritis; nephrotropic; sgenic mouse; glomerular disease; animal model; drug screening
                                                                                                                                                                                                2001-300136/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-425651/45
DB; AAH48181.
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                                                                                                                                                                                                                                                 KUROKAWA K.
                                                                                                                                                                                      AAF82439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADLSGIASGGRLYISRMMGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADLSGIASGGRLYVSKLMHK 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       380
                                                                                                                        Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                             2000WO-JP06988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                      99JP-0285736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
                                                                                                                        48-50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84.7%;
                                                                                                                   62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         380
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83;
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      large numbers
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tive of
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                                                                                 of
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Best Local
                     and polynucleotides (II). (I) and (II) are useful for treating inflammatory conditions such as arthritis, nephritis, Crohn's disease, ischaemia-reperfusion injury, shock, sepsis, immune responses, and is involved in increasing haematopolesis, stem cell survival, bone growth and remodeling. (I), (II) and modulators of (II) are useful for prophylaxis or treatment of one or more cancers. (II) is also useful for creating transgenic animals useful for studying the in vivo activities of the polypeptide as well as for studying modulators of the polypeptides.

(I) induces the proliferation of neural cells and regeneration of nerve
                                                                                                                              The
                                                                                                                                                                                         Novel polypeptides and nucleic acids obtained from prepared from various human tissues, for diagnosis cancer, neurological, inflammatory, and autoimmune
                                                                                                                                                                                                                                                                                                Tang
                                                                                                                                                                                                                                                                                                                                                                  17-JUN-2000;
14-JUL-2000;
19-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ulcer; osteoporosis; bone degenerative disorder; periodontal disease; gut protection; lung; liver fibrosis; immune deficiency; infection; severe combined immunodeficiency; SCID; autoimmune disorder; allergy; multiple sclerosis; rheumatoid arthritis; diabetes mellitus; asthma; fertility; analgesic; pain; antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ischaemia-reperfusion injury; haematopoiesis; cancer; neuropathy; transgenic animal; Alzheimer's disease; Parkinson's disease; burn; transgenic animal; Rizheimer's platelet disorder; thrombocytopenia; amyotrophic lateral sclerosis; platelet disorder; thrombocytopenia;
                                                                                                                                                                                                                                                                                      Zhao
                                                                                                                                                                                                                                                                                                                                                                                                      07-MAR-2000;
19-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAR-2001;
                                                                                                                                                                     Example
                                                                                                                                                                                                                                                                                                                            (HYSE-)
                                                                                                                                                                                                                                                                                                                                                    20-OCT-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU28187;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel human secretory protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-DEC-2001
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                                                                                                                                                                                                                                                 2001-589934/66.
DB; AAS45087.
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                                                                                                                                                                  5; SEQ ID No 356; 107pp; English.
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                                                                                                                                                                                                                                                                                    Liu C,
Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
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2000US-0665363
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein; arthritis; Crohn's disease; sepsis;
                                                                                                                                                                                                                                                                                     Asundi V,
Drmanac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.7%;
                                                                                                                                         to novel isolated human secreted polypeptides
                                                                                                                                                                                                                                                                                      RT,
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                                                                                                                                                                                                                                                                                    Zhang
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                                                                                                                                                                                                                                                                                                 Wehrman
                                                                                                                                                                                                                                                                                    J,
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                                                                                                                                                                                                                                                                                                 Ren
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                                                                                                                                                                                             and treatment disorders -
                                                                                                                                                                                                                    cDNA libraries
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                                                                                                                                                                                                                                                                                    Y, Zhou
Wang J;
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brain tissue and is useful

for the treatment of

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ARB93480

ID AAB93

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-JAN-2000;
02-MAY-2000;
09-JUN-2000;
                                                                                     Primer sets for synthesizing polynucleotides, particularly the 5602 full-length cDNAs defined in the specification, and for the detectic and/or diagnosis of the abnormality of the proteins encoded by the full-length cDNAs -
                                  Claim 8;
                                                                                                                                                                                                                                                            WPI; 2001-318749/34.
                                                                                                                                                                                                                                                                                                                                                            Ota T,
                                                                                                                                                                                                                                                                                                                                                                                                                                (HELI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JUL-1999;
27-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human protein sequence SEQ ID NO:12768.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-JUN-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . Similarity
10; Conserv
                                                                                                                                                                                                                                                                                                                                                        Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                            HELIX RES INST.
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2000JP-0183767.
2000JP-0241899.
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                              ID 12768;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000EP-0116126
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99JP-0300253.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     detection; diagnosis; antisense therapy; gene therapy.
                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                            Nishikawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51.0%;
83.3%;
                           2537pp + CD
                                                                                                                                                                                                                                                                                                                             Wakamatsu
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Pred. No.
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                                                                                                                                                                                                                                                                                                                         Hayashi K, (
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13;
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                                                                                                                                                                                                                                                                                                                         Saito K,
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                                                                                                                                                                                                                                                                                                                                                            Yamamoto
                                                                                                                          detection by the
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SEQ

ROM; English

WPI; 2002-041392/05 N-PSDB; ABA90345.

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AAH13632 to AAH13632 represent invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                            nephrotropic; anorectic; cytostatic; vaccine; neurological diseas cardiovascular disease; respiratory disease; liver disease; renal disease; skeletal muscle disease; gastrointestinal disease; placental disease; testicular cancer; male fertility; pancreatic
                                                                                                                                                                                                                                                                                                                                                                                                        Human; nootropic; neuroprotective; anticonvulsant; antidepressant; neuroleptic; tranquiliser; antiarrhythmic; cardiant; antiasthmatic; antiinflammatory; antilipaemic; hepatotropic; virucide; antidiabetic;
                                          Agarwal P,
Lai Y, Xie
                                                                                                                                                                                                                                                   01-NOV-2001.
                                                                                                                                                                                                                                                                                WO200181363-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human polypeptide #20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-FEB-2002 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABB53280 standard;
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                                                                                        (SMIK
                                                                                                                                                     11-MAY-2000;
25-MAY-2000;
                                                                                                                                                                                      27-APR-2000;
                                                                                                                                                                                                                     26-APR-2001; 2001WO-US13360
                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                        26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     454
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                                                                                        SMITHKLINE SMITHKLINE
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                                          Murdock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               615 AA;
                                                                                                                                     ; 2000US-199963P.
; 2000US-203336P.
; 2000US-207087P.
; 2000US-207546P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                        BEECHAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein;
                                                         PR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51.0%;
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                                                            Rizvi SK,
                                                                                          CORP
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Pred. No.
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                                                            Smith
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13;
                                                            RF,
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                                                           Xiang
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                                                            2
                                                                                                                                                                                                                                                                                                                                             pancreatic disease
                                                            Kabnick KS;
                                                                                                                                                                                                                                                                                                                                                                                           disease;
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PT Novel polypeptides and polynucleotides useful as a vaccine for preventing and treating diseases associated the polypeptide, e.g. PT asthma, amnesias.

XX Claim 1; Page 90-91; ll6pp; English.

CC 583, 581, 628, 424, 638, 229, 310, 841, 241, 369, 382, 185, 586, 1026, CC 583, 581, 622, 394, 471, 485, 286, 33, 495, 350, 619, 490, 462, 255, CC 644, 782, 262, 394, 471, 485, 286, 33, 495, 350, 619, 490, 462, 255, CC 644, 782, 262, 394, 471, 485, 286, 533, 495, 350, 619, 490, 462, 255, CC 644, 782, 262, 394, 471, 485, 286, 534, 495, 350, 619, 490, 462, 255, CC 644, 782, 262, 394, 472, 607, 781, 640, 686 or 154 amino acid sequence as CC polypeptides and antibodies against the polypeptides are useful for CC including diseases such as neurological and psychiatric diseases, CC including diseases such as neurological and psychiatric diseases, CC including congestive heart failure, Hodgkin's disease and myocardial CC infarction; respiratory diseases including asthma, chronic obstructive pulmonary disease, renal disease including asthma, chronic obstructive companies and adult respiratory distress companies and adult respiratory distress companies, cirrhosis, cc syndrome; liver diseases including hypercholesterolaemia, cirrhosis, CC viral and nonviral hepatitis, Type II diabetes mellitis, and impaired companies and glomerulonephritis; skeletal muscle diseases including consession constituents and obesity; gastrointestinal constituents and consesses including trenal failure, acute tubular concerns including myotonia congenita and intestinal obstruction; lymph consesses including low testicular cancer, and consesses including low testosterone and male conjugated and diseases of panceras including diseases of panceras including diseases of panceras including conjugated and co
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Qy 1 ADLSGIASGGRLYISRMMGK 20
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Db 317 ADLTGISPSPNLYLSKIIHK 336

Query Match Best Local (Matches

Local Similarity 45.(es 9; Conservative

48.0%;

Score 47; DB : Pred. No. 24; 6; Mismatches

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Length 394; ; Indels

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Search completed: July 11, 2003, 11:54:22 Job time : 12.4761 secs

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Sequence: Title: Perfect score:

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Burns, Doane, Swecker & STREET: P.O. Box 1404
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, v
CURRENT APPLICATION NOMBER: US/08/611,977
FILING DATE: 06-MAR-1996
CURASSIFICATION: 435
                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                    APPLICATION NUMBER: JP 6-067339
FILING DATE: 04 MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAN, MALCOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                   TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 6:
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     SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. 5972886omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6, Application US/08611977
5. 5972886
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5972886omi
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ISHIDA, No. S
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NAKAZATO, Hiroshi
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US-08-390-192-9
US-09-501-192-9
US-09-348-817A-6
US-09-348-817A-6
US-09-330-317B-18
US-09-707-802-3
US-09-991-326-3
US-09-360-237-59
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Similarity

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INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
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TOPOLOGY: 11:
MOLECULE TYPE:
8-472-659-6
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STRANDEDNESS: $4.
TOPOLOGY: ''
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/472,659
FILING DATE: 07-JUN-1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                                                                                       NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-248
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
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FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: YAMAICHT, KOZO
APPLICANT: YAMAGUCHI, NO. 5831030cmi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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OPERATING SYSTEM:
                                          TYPE: amino acid
STRANDEDNESS: single
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                                                                            LENGTH:
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                                                                           20 amino acids
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ISHIDA, No. 5831030uhiro
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NAKAZATO, Hiroshi
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/474,66: FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: DE COMPONIONE
OPERATING SYSTEM: PC-DOS/MS-DOS
COCUMENTO DE DATEMIN DE DASEE #1.0.
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APPLICANT: YAMAGUCHI, NO. 5874253cmi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Alexandria
STATE: Virginia
COUNTRY: United States
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19; Conser
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ADLSGIASGGRLYISRMMGK 20
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George Mason Bldg., Washington & Prince Sts
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TSURUOKA, NO. 5874253uo
NAKAZATO, Hiroshi
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                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                         SS: single
linear
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                                                                                                                                    93.9%;
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                                                                                                                                    Score 92; [
Pred. No. 2.
                                                                                                        Mismatches
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                                                                                                                                        .1e-09;
                                                                                                                                                                Length 20;
                                                                                                        Indels
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ADLSGIASGGRLYISRMXGK 20

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RESULT 5
US-08-474-661-34
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                                            Patent No. 58742
                                                             Sequence 34,
                                                                                                                                                                                                             Matches
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                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                        TELEFAX: (703) 836-202
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: JP 5-0
FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 14-JUL-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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STREET: P.C.
STREET: Virginia
STATE: Virginia
Trafted S
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                      TOPOLOGY: linear MOLECULE TYPE: protein
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                                                                                                                                                                                                             Local Similarity
nes 19; Conserva
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                                                                                                                                             305 ADLSGIASGGRLYISRMMHK 324
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                                                             Application US/08474661
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TSUROUOKA, No. 5831030uo
NAKAZATO, Hiroshi
                                                                                                                                                                                                             Conservative
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YAMAGUCHI, NO. 5831030omi
YENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
IWASA, Fuyuki
               TSUJIMOTO, Masafum1
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KURIHARA, Tatsuya
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                                                                                                                                                                                                          ; Score 90; DB;
; Pred. No. 1.6e
0; Mismatches
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1.6e-07;
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US-08-611-977-34
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ZIP: 22313-1404
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy down type:
MEDIUM TYPE: Floppy disk

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INFORMATION FOR SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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APPLICANT:
APPLICANT:
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REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
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APPLICANT:
APPLICANT:
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SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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LENGTH: 380 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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CITY: Alexandria
STATE: Virginia
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STREET: George Mason Bldg., Washington & Prince Sts.
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: MIUNG,
: ISHIDA, NO. 597...
T: KURIHARA, Tatsuya
T: YAMAICHI, KOZO
NT: YAMAGICHI, KOZO
S972886om1
NT: YAMAGICHI, NO. 5972886om1
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VENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
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                                                                                                                                                                                                                                                                                                         TSUROUOKA, No. 5972886uo
NAKAZATO, Hiroshi
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NAKAZATO, Hiroshi
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95.0%;
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62.5%;

Pred. No. 4.2;

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                                  ; TYPE: PRT
; ORGANISM: canis
US-09-583-492-10
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                                                                                  SEQ ID NO 10
LENGTH: 327
                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
   Query Match
                                                                                                                                                                                                                                                                                                                                                       Sequence 10,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                              APPLICANT: Cui, Jisong
APPLICANT: Lo, Jane-Ling
APPLICANT: Lo, Jane-Ling
APPLICANT: MOUNT, GEOTGE R.
TITLE OF INVENTION: DOG GONADOTROPIN RELEASING HORMONE
TITLE OF INVENTION: RECEPTOR
FILE REFERENCE: 20140
CURRENT APPLICATION NUMBER: US/09/583,492
CURRENT FILING DATE: 2000-05-31
                                                                                                                 EARLIER FILING DATE: 2000-06-10
NUMBER OF SEQ ID NOS: 10
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                         atent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                     EARLIER APPLICATION NUMBER: 60/138,448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUI-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
TOPOLOGY: linear
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STATE: Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                      305 ADLSGIASGGRLYISRMMHK 324
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19; Conserv
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P.O. Box 1404
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SYSTEM: PC-DOS/MS-DOS
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   46.98;
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Pred. No. 1.6e-07;
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   Score 46;
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   DB 4;
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Length 327;
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US-08-121-714-8
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                                                                Sequence 8, Applion Patent No. 580100:
                                                                                                                                                                                                                                 Matches
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Best Local
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                                 GENERAL INFORMATION: APPLICANT: Sager,
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Wordberfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/121,714
   APPLICANT:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 536
PRIOR APPLICATION DATA:
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TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH
TITLE OF INVENTION: TUMOR SUPPRESSING ACTIVITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                  TYPE:
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TELEX: 2001:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Fraser, Janis K
REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 09/01/92
APPLICATION NUMBER: 07/28/92
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/28/92
                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 0 FILING DATE: 09/01/92
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                                                                                                                                                                                                                                                                                                                                                              LENGTH:
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                                                                               Application US/08477108A
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225 Franklin Street
zou, zhiqiang
Anisowicz, Anthony
                                                                                                                                                                                                                                                                                                                                                                                                                           (617) 542-8906
                                 Sager, Ruth
                                                                                                                                                                                                                                 Conservative
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Pred. NO. 16;
7; Mismatches
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                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Fraser, Janis K.
REGISTRATION NUMBER: 34,819
REFERENCE/DOCKET NUMBER: 0657
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEPAX: (617) 542-8906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IDEN PS/2 Model 50Z Or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WORDERFECT (Version 5.1)
CURRENT APPLICATION DATA:
                                                                                                                                NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 225 Franklin Street
                                                                                                                                                                                        APPLICANT: Sager, Ruth
TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH
TITLE OF INVENTION: TUMOR SUPPRESSING ACTIVITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: 03/01/93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                  COMPUTER READABLE FORM: MEDIUM TYPE: 3.5" Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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FILING DATE: 02/28/91
ATTORNEY/AGENT INFORMATION:
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FILING DATE: 09/01/92
APPLICATION NUMBER: 07/
FILING DATE: 02/28/92
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                                                                                                                       CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: U.S.A. ZIP: 02110-2804
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les 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                    COUNTRY:
   OPERATING SYSTEM:
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IBM PS/2 Model 50z or 55sx
SYSTEM: MS-DOS (Version 5.0)
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Pred. No. 16;
7; Mismatches
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Best Local S
                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/938,823
FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844,296
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662,216
FILING DATE: 02/28/91
            ATTORNEY/AGENT INFORMATION:
NAME: Fraser, Janis K.
REGISTRATION NUMBER: 34,
REFERENCE/DOCKET NUMBER:
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PCT-US93-08322-8
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CLASSIFICATION: 536
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: 08/121,714
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NAME: Fraser, Janis K.

NAME: Fraser, Janis K.
                                                                                                                     SOFTWARE: WordPerfect (Version 5.1) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH TUMOR SUPPRESSING ACTIVITY NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fish & Richardson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
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REFERENCE/DOCKET NUMBER: 06:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA
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APPLICATION NUMBER: 07/28/20
This could be applicated and the country of the count
                                                                                                                                                                                            COMPUTER: IBM PS/2 Model 502 or 55SX OPERATING SYSTEM: MS-DOS (Version 5.0)
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FILING DATE: 09/01/92
APPLICATION NUMBER: 0:
FILING DATE: 02/28/92
CLASSIFICATION:
                                         FILING DATE:
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                                                                           APPLICATION NUMBER: PCT/US93/08322
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02110-2804
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Pred. No.
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US-09-123-912-110
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US-09-123-912-110
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Best Local :
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                             Patent No.
CURRENT APPLICATION NUMBER: US/09/643,597
CURRENT FILING DATE: 2000-08-21
NUMBER OF SEQ ID NOS: 369
                                        APPLICANT: Henderson, Robert A.
APPLICANT: MCNeill, Patricia D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.455C11
                                                                                                                                                                                                                                                                                         sequence 110,
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CURRENT FILING DATE: 1998-07-27
PRIOR APPLICATION NUMBER: 09/040,802
PRIOR FILING DATE: 1998-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Reed, Steven G.

APPLICANT: Wang, Tongtong
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY OF LUNG CANCER
FILE REFERENCE: 210121.455C1
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INFORMATION FOR SEQ ID NO:
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STRANDEDNESS:
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Fan, Liqun
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                                                                                                                                                                                                Bangur, Chaitanya S.
                                                                                                                                       Wang, Aijun
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Fanger, Gary R.
                                                                                                                                                                                                                 Kalos, Michael D.
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Pred. No. 17;
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Pred. No. 16;
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US-09-026-408-2
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Matches 8
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SEQ ID NO 110
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                                                                                                                                                                                                                                 TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                     FILING DATE: 16-AUG-1996 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: STERNE, K
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                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 0: FILING DATE: 15-AUG-1997
                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 36 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 60/024,056 FILING DATE: 16-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 1100 NEW CITY: WASHINGTON
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                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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316 DLSGITDSSEVYVSQVTQK 334
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Pred. No.
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                                                                                    Length 392;
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                                                          Gaps
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RESULT 15 US-09-123-912-112

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Sequence 112, Application US/09123912A

Patent No. 6312695

GENERAL IMPORMATION:
COMPOUNDS AND METHODS FOR THERAPY OF LUNG CANCER
PILE REFERENCE: 201021.455C1

CURRENT SPLICANT: Wang, Tongtong
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY OF LUNG CANCER
FILE REFERENCE: 201021.45C1

CURRENT APPLICATION NUMBER: US/09/123,912A

CURRENT FILING DATE: 1998-07-27

PRIOR APPLICATION NUMBER: 09/040,802

PRIOR FILING DATE: 1998-03-18

NUMBER OF SEQ ID NOS: 114

SOFTWARE: Patentin ver. 2.0

SEQ ID NO 112

CURRENT: 400

TYPE: PRT

ORGANISM: Homo sapiens
US-09-123-912-112

Ouery Match
BS; Conservative 43: DB 4: Length 400;
Best Local Similarity 44.44; Pred. No. 17;
Matches 8; Conservative 4; Mismatches 6; Indels 0; Gaps O;

Matches 8; Conservative 4; Mismatches 6; Indels 0; Gaps O;

Ouery Match
BS; Local Similarity 44.44; Pred. No. 17;
Matches 8; Conservative 4; Mismatches 6; Indels 0; Gaps O;

Ouery Match
BS; Local Similarity 44.44; Pred. No. 17;
Matches 8; Conservative 4; Mismatches 6; Indels O; Gaps O;

Ouery Match 11::1 | | | :: |

Db 323 ADYSGMSSGSLYAQKFI 340

Search completed: July 11, 2003, 12:02:09

Job time: 4.57588 secs
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Title: Perfect score: Sequence:

US-10-091-442-6 98 1 ADLSGIASGGRLYISRMMGK

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Scoring table:

BLOSUM62 Gapop 10.0 ,

Gapext 0.5

OM protein - protein search, using sw model

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

July 11, 2003, 11:59:17; Search time 5.86279 Seconds (without alignments) 397.148 Million cell updates/sec

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

Minimum DB seq Maximum DB seq

length: 0 length: 2000000000

Total number of hits satisfying chosen parameters:

445758

Searched:

445758 seqs,

116419773 residues

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RESULT 1
US-10-091-442-6
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Patent No. US20020164711A1
GENERAL INFORMATION:
APPLICANT: TSUJIMOTO, Masafur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION LONG
PRIOR APPLICATION NUMBER: US/09/140,719
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US/09/140,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US/08/091,028
FILING DATE: 17-JUL-1993
APPLICATION NUMBER: US/091,028
FILING DATE: 17-JUL-1993
FILING DATE: 17-JUL-1993
APPLICATION NUMBER: US/06/07/200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Si
STREET: P.O. Box 1404
CITY: Alexandria
STATE: Virginia
COUNTAX: United States
LIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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ISHIDA, NO. US20020164711Aluhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, KOZO
YAMAGUCHI, NO. US20020164711Alomi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
APPLICATION NUMBER: JP 6-067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33335
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NAKAZATO, Hiroshi
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US-09-9764-869-679
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US-09-764-898-169
US-09-764-898-169
US-09-985-814-946
US-09-985-814-946
US-09-198-070-67
US-10-198-070-67
US-10-198-070-70
US-10-135-629-4
US-09-93-180-3
US-09-919-039-180-3
US-09-919-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19-039-19
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US-09-850-716A-112 US-09-897-778-112	US-09-735-705-112	03-09-902-004-2	05-09-903-684-3 05-09-903-684-3	US-09-850-716A-110	US-09-735-705-110	US-09-466-396A-110	US-10-157-031-355	US-09-910-430-27	US-10-165-605A-27	US-10-097-340-139	US-09-738-626-6331	US-09-823-187-2	US-09-140-719-34	US-10-091-442-34	US-09-140-719-6	US-10-091-442-6	ID	SUMMARIES	Pred. No. is the number of results predicted by chance score greater than or equal to the score of the result and is derived by analysis of the total score distribu		/cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*	o/prodata/1/pubpaa/USIU_PUBCOMB.pep:	_o/prodera/1/pubpee/osto_wew_eos.pep:	cgn2_6/5todata/1/5b555/US10_NEW DUB.cgn2_cgn2_ov9_rodata/1/5b555	cgnz_6/ptodata/1/pubbaa/USO9_NEW_PUB.pep:	cgnz_s/pcodaca/1/pubpaa/USO8_PUBCOMB.pep:*	Cynz_o/prodara/i/pubpaa/usuo_nem_eus.pep::	cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*	cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep: *	cgn2_6/ptodata/1/pubpaa/US06_PUBCO	/cgn2_6/ptodata/1/pubpaa/rci_wew_rus.pep:* /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*		Applications_AA:*
112, 112,	Sequence 112, App	110	110	110,	e 110,	ш	55	e 27	27,		63		≥ 34,	34,	ە 9	nce 6, A	Description		by chance to have a he result being printed, distribution.		OMB.pep:*	CMB. pep: *	roa.pep:	CMB. pep:	OB. pep: *	MB. pep:	ob.pep:	MB.pep:*	OMB.pep:*	PUBCOMB.pep:**	5_NEW_PUB.pep:*	_NEW_PUB.pep:*	

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US-09-140-719-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 6:
                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6.
FILING DATE: 04-MAR-1993
                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
ATTORNEY/AGENT INFORMATION: NAME: McGowan, Malcolm K
                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                   APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                       APPLICATION NUMBER: US 0 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 08-AUCCLASSIFICATION:
                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: McGowan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E: Burns, Doane, Swecker & Mathis
P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YAMAGUCHI, No. US20010026931Alomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TSUROUOKA, No. US20010026931A1uo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YAMAICHI, Kozo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.
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                                                    JP 6-067339
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Pred. No. 4.2e-09;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-091-442-34
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Best Local S
Matches 20
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Patent No. US20020164711A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (703) 836-202
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
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                 TELECOMMUNICATION INFORMATION
                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                   CLASSIFICATION: <Unknown> PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doa
STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KURTHARA, Tatsuya
YAMAICHI, KOZO
YAMAICHI, KOZO
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: TSUJIMOTO, Masafumi
                                                                                                                                             APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 ADLSGIASGGRLYISRMMGK 20
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20; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Alexandria
STATE: Virginia
TELEPHONE:
                                                                                                            APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF SEQUENCES:
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                                                                       McGowan, Malcolm K.
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ISHIDA, No. US20020164711A1uhiro
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NAKAZATO, Hiroshi
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(703)
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RESULT 4
US-09-140-719-34
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Patent No. U
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
TELEFAX: (703) 836-202:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                               APPLICATION NUMBER: US 01
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
US 08/091,028
                                                          NAME: MGGOWAN, MAICOLM K.
REGISTRATION NUMBER: 39,300
REGERENCE/DOCKET NUMBER: 00:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                   APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US/09/140,719
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MEDIUM TYPE: Floppy disk
                                                                                                                                          ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. Box CITY: Alexandria
                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER:
                                                                                                                                                           APPLICATION NUMBER: JP 6 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: United States ZIP: 22313-1404
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. US20010026931A10mi
YAMAGUCHI, NO. US20010026931A10mi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                           IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESS:
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                                            836-2021
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                                                                                                                                                                                                                       JP 4-212305
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                                                                                             001560-247
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Pred. No. 2e-06;
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                                                                                                                ; LENGTH: 395
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-823-187-2
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                                                        Query Match
Best Local S
Matches S
                                                                                                                                                                        SEQ ID NO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAME
FILE REFERENCE: 15966-745
                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2000-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/1 PRIOR FILING DATE: 2000-03-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/823,187
CURRENT FILING DATE: 2001-03-29
                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2000-04-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: PRIOR FILING DATE: 2000-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Burgess, Catherine APPLICANT: Gusev, Vladimir Y
                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                        PRIOR FILING
                                                                                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2000-04-1
                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/196,556
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                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2000-04-06
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                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                        [LING DATE: 2000-04-10
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                1 ADLSGIASGGRLYISRMMGK 20
                                                        Similarity
9; Conserv
                                                                                                                                                                                         PatentIn
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Shimkets, Richard A
Spaderna, Steven K
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Padigaru, Muralidhar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Liu, Xiaohong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Spytek, Kimberly
                                                                                                                                                                                                                      DATE:
                                                        Conservative
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                                                                  48.0%;
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95.0%;
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Pred. No. 2e-06;
                                                                     Score 47; DB
Pred. No. 14;
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                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 10;
                                                                                     9;
                                                                                  Length 395;
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RESULT 6
US-09-738-626-6331
; Sequence 6331, Application US/09738626
; Publication No. US20020197605A1

NAKAGAWA, SATOSHI

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SEQ ID NO 6331
           TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification, TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer FILE REFERENCE: MRI-030
CURRENT APPLICATION NUMBER: US/10/097,340
CURRENT FILING DATE: 2002-03-14
PRIOR APPLICATION NUMBER: 60/276,025
PRIOR FILING DATE: 2001-03-14
PRIOR FILING DATE: 2001-03-14
PRIOR FILING DATE: 2001-09-26
PRIOR FILING DATE: 2001-09-26
PRIOR FILING DATE: 2001-03-4
PRIOR FILING DATE: 2001-03-14
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APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: John MONAHAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
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TYPE: PRT
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APPLICATION
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                                                                                                                                                                                                                                                                  Karen GLATT
                                                                                                                                                                                                                                                                                                                                       Gordon B. MILLS Robert C. BAST, Jr.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Steve G. KOVATS
Rachel E. MEYERS
Michael MORRISEY
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SENOH, AKIHIRO
                                                                                                                                                                                                                                                                                                                          Karen LU
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Shubhangi KAMATKAR
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                                                                                                                                                                                                                                                                                    Xumei ZHAO
                                                                                                                                                                                                                                                                                                      Rosemarie SCHMANDT
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                                                                                                                                                                                                                                                                                                                                                                                 Peter VEIBY
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; NUMBER OF SEQ ID NOS: 363
; SOFTWARE: FastSEQ for Windows Version
; SEQ ID NO 139
; LENGTH: 379
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-097-340-139
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US-09-910-430-27
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US-10-165-605A-27
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Best Local :
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                                                      APPLICANT: Godfroi, Edmond
APPLICANT: Bollen, Alex
APPLICANT: Leboulle, Gerard
TITLE OF INVENTION: IDENTIFICATION AND MOLECULAR CHARACERIZATION OF
TITLE OF INVENTION: PROTEINS, EXPRESSED IN THE IXODES RICINUS SALITITLE OF INVENTION: GLANDS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: PCT/BE00/00061
PRIOR FILING DATE: 2000-06-06
PRIOR APPLICATION NUMBER: GB9913425.6
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APPLICANT: Bollen, Alex
APPLICANT: Leboulle, Gerard
TITLE OF INVENTION: IDENTIFICATION AND MOLECULAR CHARACERIZATION OF
TITLE OF INVENTION: PROTEINS, EXPRESSED IN THE IXODES RICINUS SALIVARY
TITLE OF INVENTION: GLANDS
TITLE OF INVENTION: GLANDS
TITLE OF INVENTION: GLANDS
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CURRENT APPLICATION NUMBER: US/09/910,430 CURRENT FILING DATE: 2001-07-19
                                        FILE REFERENCE: VANM229.001CP1
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2001-09-26
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Pred. No.
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CURRENT APPLICATION NUMBER: US/09/466,396A
CURRENT FILING DATE: 1999-12-17
NUMBER OF SEO ID NOS: 224
SOFTWARE: FASTSEO for Windows Version 3.0
SEO ID NO 110
LENGTH: 391
TYPE: PRT
ORGANISM: Homo sapien
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Best Local S
Matches 8
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CURRENT FILING DATE: 2002-05-30
NUMBER OF SEO ID NOS: 415
SOFTWARE: PATENTIN VERSION 3.1
SEO ID NO 355
LENGTH: 391
TYPE: PRT
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Best Local Similarity
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                                                                                                                                                                         APPLICANT: Wang, Tongtong
APPLICANT: Wang, Tongtong
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.455C4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Lobashev, A. V.
APPLICANT: Krukovskaya, L. L.
TITLE OF INVENTION: In silico screening for phenotype-associated expressed sequences
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nes 8; Conserv
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o. US20030108890A1
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50.0%;
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Pred. No.
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DB
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; TYPE: PRT
; ORGANISM: Homo sapien
US-09-735-705-110
                                                                                               ; ORGANISM: Homo sapien US-09-850-716A-110
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LENGTH: 391
TYPE: PRT
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                                 Best Local Similarity 44.4%; Pred. No. Matches 8; Conservative 4...
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                                                                                                                                                                                                                          APPLICANT: Kalos, Michael D.
APPLICANT: McNeill, Patricia D.
APPLICANT: Retter, Marc W.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIACHOSIS OF LUNG CANCER
FILE REFERENCE: 210121.455C15
                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/850,716A CURRENT FILING DATE: 2001-05-07 NUMBER OF SEQ ID NOS: 440 SOFTWARE: FastSEQ for Windows Version 3.0
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. US20020052329A1
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1 ADLSGIASGGRLYISRMM
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Fan, Ligun
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Li, Samuel X.
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Pred. No.
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61;
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61;
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ADYSGMSSGSGLYAQKFL 331

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RESULT 15
US-09-902-684-2
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 110
LENGTH: 391
TYPE: PRT
ORGANISM: Homo sapiens
US-09-897-778-110
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Patent No. US20020127640A1
GENERAL INFORMATION:
APPLICANT: Ni et al.
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Best Local Similarity 44.4%;
Matches 8; Conservative
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APPLICANT:
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CURRENT APPLICATION NUMBER: US/09/897,778
CURRENT FILING DATE: 2001-06-28
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/902,684
FILING DATE: 12-U1-2001
CLASSIFICATION: CUnknown>
PRIOR APPLICATION DATA:
                                                     APPLICATION NUMBER: 09/026,408
FILING DATE: <Unknown>
APPLICATION NUMBER: US 60/024,056
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT IMPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 NEW YORK AVENUE, SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 314 ADYSGMSSGSGLYAQKFL 331
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NAME: STEFFE, ERIC K.
REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 1488.0300002
                                                                                                                                                                                                                                                                                                                                                                                           CITY: WASHINGTON STATE: DC
                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fanger, Gary R.
Vedvick, Thomas S.
Carter, Darrick
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Fanger, Neil
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Henderson, Robert A.
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Marnerakis, Margarita
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INVENTION: PANCREAS-DERIVED PLASMINOGEN ACTIVATOR INHIBITOR
                                                                                                                                                                                                                                                                                                                                                                         USA
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TOPOLOGY: Inear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO:
US-09-902-684-2
Search completed: July 11, 2003, 12:37:33 Job time: 5.86279 secs
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TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                Local Similarity
nes 8; Conserv
                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                       316 DLSGITDSSEVYVSQVTQK 334
                                                                                   2 DLSGIASGGRLYISRMMGK 20
                                                                                                                                                                                                                                TYPE: amino acids
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ilarity 42.1%;
Conservative
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Minimum DB :
Maximum DB :
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match
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Gapop 10.0 , Gapext 0.5
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PIR_73:*
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872528
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             signal peptidase, probable signal pe conserved hybosomethistone deacetylas deacetylase (impor sulfate ABC transphypothetical prote elastase inhibitor soxil transcriptio
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serine proteinase,
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Query Match 49.0%; Rest Local Similarity 47.1%; Matches 8; Conservative	RESULT 2 A75474 A75474 A75474 Serine proteinase, subtilase family c; Species: Deinococcus radiodurans C; Date: 03-Dec-1999 #sequence_revis C; Date: 03-Dec-1999 #sequence_revis C; Accession: A75474 R; White, O.; Eisen, J.A.; Heidelber, M.; Shen, M.; Vannathevan, J.J.; L.; Shen, M.; Vannathevan, J.J.; L.; Sischence 286, 1571-1577, 1999 A; Title: Genome sequence of the rad A; Reference number: A75250; MUID: 20 A; Accession: A75474 A; Status: preliminary A; Molecule type: DNA A; Residues: 1-591 < WHI> A; Cross-references: GB: ABE001935; GB A; Experimental source: strain R1 C; Genetics: A; Gene: DR0812 A; Map position: 1 C; Superfamily: subtilisin; subtilis	Query Match Soll* Best Local Similarity 57.9*; Matches 11; Conservative Qy 2 DLSGIASGRILYISRMNGK	RESULT 1 S49162 ZG-21p protein - rat C;Species: Rattus norvegicus (Norway rat) C;Date: 16-Feb-1995 #sequence_revision 12 C;Accession: S49162 R;Cronshagen, U.; Chen, C.; Kern, H.F. submitted to the EMBL Data Library, March A;Description: A novel protein expressed A;Reterence number: S49162 A;Reterence number: S49162 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-191 <cro> A;Cross-references: EMBL:230585; NID:g510 C;Superfamily: antithrombin III</cro>		30 42 42.9 700 2 31 42 42.9 1288 2 32 42 42.9 1288 2 33 41 41.8 383 2 34 41 41.8 388 2 35 41 41.8 397 2 41 41.8 41.8 41.8 41.8 41.8 41.8 41.8 41
Score 48; DB 2; Length 59 Pred. No. 9.1; 6; Mismatches 3; Indels	- Deinococcus radiodu ion 03-Dec-1999 #text_ g, J.F.; Hickey, E.K.; am, P.; McDonald, L.; er, C.M. ioresistant bacterium 036896; PMID:10567266	Score 54; DB 2; Length Pred. No. 0.3; 1; Mismatches 7; Inde 1; 20 1	rrway rat) vision 12-May-1995 #text_change , H.F. iry, March 1994 expressed exclusively in pancrea	ALIGNMENTS	D75508 T45091 T09908 S38962 S11433 AF1907 T39184 JTHUC A72538 C186336 T05679 T43789 T43789 A31886 C44138
591; els 0; Gaps 0;	rrans (strain R1) .change 31-Mar-2000 .peterson, J.D.; Dodson, R.J Utterback, T.; Zalewski, C.; Deinococcus radiodurans R17; PIDN:AAF10389.1; PID:g645	191; sls 0; Gaps 0;	nange 21-Jan-2000 creas is proposed to be a		serine/threonine p catalase (EC 1.11. hypothetical prote serpin - pig ovalbumin - Japane hypothetical prote bomapin - human · contrapsin precurs alpha-1-antichymot conserved hypothet thypothetical prote H+-transporting tw H+-exporting tw H+-exporting tw H+-exporting tw H+-transporting tw H+-transporting tw

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A;Cross-references: GB:M68516; GB:M64881; NID:g189677; PIDN:AAA02811.1; PID:g189678; GB:R;Meijers, J.C.M.; Chung, D.W.
Thromb. Res. 59, 389-393, 1990
A;Title: Evidence for a glycine residue at position 316 in human protein C inhibitor.
A;Reference number: A37341; MUID:91048502; PMID:2173165
A;Accession: A37341
A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual tra
A;Status: preliminary; nucleic acid sequence not shown; not compared with conceptual tra
A;Molecule type: DNA
A;Residues: 331-341 <MEI2>
A;Cross-references: GB:M68516; GB:M64881; NID:g189677
R;Suzuki, K.; Deyashiki, Y.; Nishioka, J.; Kurachi, K.; Akira, M.; Yamamoto, S.; Hashimc
A;Title: Characterization of a cDNA for human protein C inhibitor.
A;Reference number: A26139; MUID:87109153; PMID:3027058
A;Accession: A26139
A;Molecule type: mRNA
A;Residues: 1-334, 'R', 336-406 <SUZ>
A;Cross-references: GB:J02639; NID:g180549; PIDN:AAA35688.1; PID:g180550
R;Radtke, K.
Submitted to the EMBL Data Library, August 1995
A;Accession: G202081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein C inhibitor precursor - human N;Alternate names: GP43; plasminogen activator inhibitor 3 precursor (PAI3); C;Species: Homo sapiens (man) C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 20-Jun-2000 C;Accession: A39339; A37341; A26139; G02081: A60434: A60469. C/1012. m10200.
A; Reference number:
A; Accession: G02081
A; Status: translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Homo sapiens (man)
C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 20-Jun-2000
C;Accession: A39339; A37341; A26139; G02081; A60434; A60462; S41213; T12502;
R;Meijers, J.C.M.; Chung, D.W.
J. Biol. Chem. 266, 15028-15034, 1991
A;Title: Organization of the gene coding for human protein C inhibitor (plasm A;Reference number: A39339; MUID:91332018; PMID:1714450
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C;Accession: B64302
R;Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Reich, C.I.; Sadow. P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rson, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A. Science 273, 1058-1073, 1996
A; Authors: Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type:
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A; Residues: 1-524 <B
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C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 22-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
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C;Species: M
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Methanococcus jannaschii
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7; Conserv
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A.Molecule type: mRNA
A.Molecule type: mRNA
A.Residues: 'E'.29-406 <POU>
A.Residues: 'E'.29-406 <POU>
A.Cross-references: EMBL:AL080185; NID:g5262662; PIDN:CAB45766.1; PID:g5262663
A.Cross-references: edult testis; clone DKF2p434P131
A.Experimental source: adult testis; clone DKF2p434P131
C.Comment: Inhibits protein C (see PIR:KXHU) and plasminogen activator (see PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Keywords: glycoprotein; monomer; polymorphism; serine proteinase inhibitor F;1-19/Domain: signal sequence #status predicted <SIG> F;20-406/Product: protein C inhibitor #status experimental <MAT> F;249,262,338/Binding site: carbohydrate (Asn) (covalent) #status predicted F;376/Inhibitory site: Arg (plasminogen activator) #status predicted
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A; Introns: 207/1; 297/2; 346/3
A; Note: DKFZP434P131.1
C; Superfamily: antithrombin III
C; Keywords: glycoprotein; monoma
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A;Molecule type: protein
A;Residues: 29-38,'X',40-44,'XX',47-50,'X',52;377,'X',379-398,'X',400
R;Poustka, A.;*Klein, M.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S.
submitted to the Protein Sequence Database, June 1999
A;Reference number: Z17525
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Eur. J. Biochem. 220, 45-53, 1994
A;Title: Complex formation between protein C inhibitor and A;Reference number: S41212; MUID:94164172; PMID:7509746
A;Accession: S41213
A; Experimental C; Genetics:
                                                                               A; Molecule type: DNA ... A; Residues: 1-957 <BEV>
                                                                                                                                     A; Reference number: A; Accession: T10633
                                                                                                                                                                                      R;Bevan, M.; Pohl, T.; Weizenegger, T.; Ban
submitted to the Protein Sequence Database,
                                                                                                                                                                                                                                            hypothetical protein T13K14.70 - Arabidopsis thallana (;Species: Arabidopsis thallana (mouse-ear cress) C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #t C;Accession: T10633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Mizuta, K.; Yasuda, T.; Kishi, K.
Biochem. Genet. 27, 731-743, 1989
A;Title: Biochemical and genetic studies of
A;Reference number: A60462; MUID:90179688;
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A; Residues: 1-54,'V',56-104,'E',106-406 <RAD>
A; Cross-references: EMBL:035464; NID:91144560;
                                                      A; Cross-references:
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A; Title: Protein C inhibitor from
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32.1-14q32.1
                         EMBL:AL080282; GSPDB:GN00062; ATSP:T13K14.ce: cultivar Columbia; BAC clone T13K14
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                                                                                                                                                                                            Bancroft, I.;
ase, June 1999
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PMID:2627198
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G:Accession: D69804

R:Kunst, F: Ogsaswara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter G.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chd A.; Ehrlich, S.D.; Emmerson, P.T.; Entlan, K.D.; Errington, J.; Fabret, C.; Ferrari, E. Nature 390, 249-256, 1997

A:Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A.; Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel Y. M.; Ogswar, K.; Ogiwara, A.; Ogiwara, A.; Ogiwara, A.; Ogiwara, A.; Ogiwara, A.; Ogiwara, G.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A:Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seron akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K.; Aruthors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A.
A:Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis. A: Accession: D69804

A:Authors: A69580; MUID:98044033; PMID:9384377
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A:Introns: 84/3; 115/2; 133/1; 280/2; 365/2; 682/1; 732/3; 771/3; (C:Superfamily: Arabidopsis thaliana hypothetical protein T13K14.70
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C36144
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J. Bacteriol. 172, 5968-5979, 1990
A;Title: Nucleotide sequence of secudomonas denitrificans 5.4-kilobase DNA fragment
en III methyltransferase and cobyrinic acid a,c-diamide synthase.
A;Reference number: A36144; MUID:91008975; PMID:2211520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       conserved hypothetical protein yfik - Bacillus subtilis
C:Species: Bacillus subtilis
C:Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 15-Oct-1999
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                                                                                                                                                    A;Cross-references: GB:299108; GB:AL009126; NID:g2633055; PIDN:CAB12666.1; PID:e1182827
A;Experimental source: strain 168
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A; Residues: 1-434 <CRO>
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                                                                                                                                                                                                                                                                    A; Status: preliminary; nucleic acid sequence
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Best Local
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Best Local Similarity
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es 9; Conservation
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         38.98;
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Pred. No. 46;
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Pred. No. 24;
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Pred.
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14;
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conserved h
C:Species:
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AF1198
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R; nawarabayasi, Y.; Hino, Y.; Horikawa, H.; Yamazaki, S.; Haikawa, Y.; Jin-no, K.; Taawa, H.; Takamiya, M.; Masuda, S.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J. DNA Res. 6, 83-101, 1999
A; Title: Complete genome sequence of an aerobic hyper-thermophilic Crenarchaeon, Aero A; Reference number: A72450; MUID:99310339; PMID:10382966
A; Accession: C72657
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A; Molecule type: DNA
A; Residues: 1-222 <KAW>
A; Cross-references: DDBJ:AP000060; NID:g5104188; PIDN:BAA79659.1;
A; Cross-references: Strain Kl
                                                                                                                                                A;Experimental source: strain Clip11262
C;Genetics:
A;Gene: lin0989
                                                                                                                                                                                                                                                                                                                           D.; Jones, L.M.; Karst, U.
D.; Jones, L.M.; Karst, U.
Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, A;Authors: Kreft, J.; Kuhn, M.; Tierrez, A.; Vazquez-Boland, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Listeria innocua
C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001
C;Accession: AD1556
                                                                                                                                                                                                                                                                                     ok, C.; Schlueter, T.; Simoes, N.; Tlerrez, A.; Vazquez-A;Title: Comparative genomics of Listeria species. A;Reference number: AB1077; MUID:21537279; PMID:11679669 A;Accession: AD1556
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C; Superfamily:
В
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A; Residues: 1-453 <GI
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C; Species: Listeria innocua
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C;Accession: C72657
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Best Local
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Best Local
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75
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9; Conserv
                                                                        Similarity
8; Conserv
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                                  GGRLYISRMMGK 20
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86
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Pred. No.
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                                                                                                            Length 453;
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J.A.; Voss, H.; Wehla
                                                                                                                                                                                                                                                                                                                                                                                                                          F.; Berche, P.; Entian, K.D.; F
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Fsihi,
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hypothetical protein lmo0990 [imported] - Listeria monocytogenes

Listeria monocytogenes

(strain

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similar to late embryogenesis abundant proteins [imported] - Arabidopsis thaliana N;Alternate names: hypothetical protein T18E12.19 C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 16-Feb-2001 C;Accession: T02712; G84444 R.; Shea, T.P.; Fujii, C.Y.; Mason, T.M.; Shen, N submitted to the EMBL Data Library, September 1998 A;Description: Arabidopsis thaliana chromosome II BAC T18E12 genomic sequence. A;Reference number: Z14702
     A; Molecule type: DNA
A; Residues: 1-1805 < A; Cross-references: 1
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A;Introns: 72/3; 105/3; 257/2; 328/2; 635/1; 685/3; 724/3
C;Superfamily: Arabidopsis thaliana hypothetical protein '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: EMBL:AL080282; GSPDB:GN00062; ATSP:T13K14.80 A;Experimental source: cultivar Columbia; BAC clone T13K14 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             submitted to the Protein S
A; Reference number: Z16991
A; Accession: T10634
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T10634
hypothetical protein T13K14.80 - Arabidopsis thaliana
hypothetical protein T13K14.80 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 18-Aug-2000
C;Accession: T10634
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Science 294, 849-852, Kunn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; A; Authors: Kreft, J.; Kuln, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AF1198
                                                                          A;Accession: T02712
A;Status: translated from GB/EMBL/DDBJ
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A; Residues: 1-870 <BEV>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
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R;Glaser, P; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche,
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A; Residues: 1-453 <GLA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary
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                              1-1805 <ROU>
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9; Conserv
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8; Conserv
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  EMBL: AC005313; NID: g3548797;
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Pred. No.
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Pred. No. 60;
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31;
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  PID:g3548816
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Dussurget, O.; Entian, K.D.;
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Voss, H.; Wehland
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Fsihi, H.
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                                                                                                                      R;Ng, W.V.; Kennedy, S.P.; Mahairas, G.G.; Berquist, B.; Pan, M.; Shukla, H.D.; Lasky; Leithauser, B.; Keller, K.; Cruz, R.; Danson, M.J.; Hough, D.W.; Maddocks, D.G.; Ja Jung, K.H.; Alam, M.; Freitas, T. Proc. Natl. Acad. Sci. U.S.A. 97, 12176-12181, 2000
A;Authors: Hou, S.; Daniels, C.J.; Dennis, P.P.; Omer, A.D.; Ebhardt, H.; Lowe, T.M.; A;Title: Genome sequence of Halobacterium species NRC-1.
A;Reference number: A84160; MUID:20504483; PMID:11016950
                         A; Molecule type: DNA
A; Residues: 1-371 <STO>
                                                                                                 A; Reference number: A; Accession: G84398
                                                                                                                                                                                                                                                                                                                      phosphate transporter permease [imported] - Halobacterium sp. NRC-1
C;Species: Halobacterium sp. NRC-1
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 02-Feb-2001
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A; Cross-references:
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Gene 93, 73-78, 1990
A; Title: Structure of the dnaA region of Micrococcus luteus: A; Reference number: JQ0737; MUID:91033019; PMID:2172090
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A;Cross references: GB:AE002093; NID:g3548816; PIDN:AAC34488.1; GSPDB:GN00139 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A:Experimental source: cultivar Columbia
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanaken, S.E.; Umayam, L.; Tallon,
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter
Nature 402, 761-768, 1999
                                                                                                                                                                            C; Keywords:
                                                                                                                                                                                                                           A; Gene: dnaN
                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-310 <FUJ>
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A; Map position: 2
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                                                                                                                                                                                                                                                                     A;Cross-references: GB:M34006; NID:g149845; PIDN:AAA25316.1; PID:g149849
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A; Residues: 1-1805 <
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ADLYGFASGGR 230
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Pred. No.
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Pred. No. 1
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GB:AE004437; NID:g10581881; PIDN:AAG20555.1; GSPDB:GN00138

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N;Alternate names: plasminogen activator inhibitor-2 homolog
C;Species: Equus caballus (domestic horse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 02-Jun-2000
C;Accession: A4421; A37276; S34062
R;Dubin, A.; Travis, J.; Enghild, J.J.; Potempa, J.
J. Biol. Chem. 267, 6576-6583, 1992
A;Title: Equine leukocyte elastase inhibitor. Primary structure and identification as A;Reference number: A42421; MUID:92202200; PMID:1551869
A;Accession: A42421
                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:M91161; NID:g164240; PIDN:AAA97513.1; PID:g164241 C;Superfamily: antithrombin III C;Keywords: serine proteinase inhibitor
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A;Gene: pstCl
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A;Molecule type: protein
A;Residues: 1-41,'E',43-325,'VD',326-379 <DUB2>
R;Rordula, T; Dubin, A.; Schooltink, H.; Koj, A.; Heinrich, P.C.; Rose-John, S.
Biochem. J. 293, 187-193, 1993
A;Title: Molecular cloning and expression of an intracellular serpin: an elastase inhibi
A;Reference number: S34062; MUID:93319507; PMID:7687128
A;Accession: S34062
A;Status: preliminary
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Search completed: July 11, 2003, 12:00:39 Job time : 5.13326 secs
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A; Residues: 1-379 < KOR>
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A;Experimental source: leukocyte
A;Experimental source: lackbone (NCBIP:89849)
R;Dubhi, A.; Travis, J.; Enghild, J.J.; Potempa, J.
R;Dubhi, A.; Travis, J.; Enghild, J.J.; Potempa, J.
R;Dubhi, A.; Travis, J.; Enghild, J.J.; Potempa, J.
R;Dubhi, A.; Pid: Sequence Database, December 1991
A;Reference number: A37276
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\; Residues: 1-379 <DUB1>
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Best Local Similarity 45.0%;
Matches 9; Conservative
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Similarity 40.0%;
8; Conservative
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protein 9

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Title:
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Sequence:
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KBP_MOUSE

CATA_MYCSM
ILEU_PIG
OVAL_COTJA
VAB2_GOSHI
SB11_HUMAN
SB10_HUMAN
HP55_TAMSI
COTR_MOUSE
AACT_HUVAN
VAB2_HORVU
VAB1_HORVU
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VAB1_HORVI
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VAB1_BOVIN
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VAB1_MOUSE
PSTA_RHILO
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SPI2_MOUSE
PTI6_BOVIN
SB12_HUMAN
Y018_PTIA
IPSP_HUMAN
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SPI2_HUMAN
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janilus gall
mus musculu
mycobacteri
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homo sapien
tamias sibi
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coturnix co
gossypium h
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15-JUN-2002 (Rel. 41, L
15-JUN-2002 (Rel. 41, L
Megsin (TP55) (Serpin E
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4443144354
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Tsujimoto M., Tsuruoka N., Ishida N., Kurihara T., Twasa F.,
Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M.,
Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K.,
Katayama T., Nakao H., Teramura M., Mizoguchi H., Yamaguchi N.;
"Purification, cDNA cloning, and characterization of a new serpin with
megakaryocyte maturation activity.";
J. Biol. Chem. 272:15373-15380(1997).
                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-slb.ch/announce/or send an email to license@isb-slb.ch).
                                                                                                                                                                                 "A mesangium-predominant gene, megsin, is a new serpin upregulated in IgA nephropathy.";
J. Clin. Invest. 102:828-836(1998).
J. Clin. Invest. 102:828-836(1998).
J. Clin. Invest. 102:828-836(1998).
J. Clin. Invest. 102:828-836(1998).
J. FUNCTION: Might function as an inhibitor of Lys-specific proteases. Might influence the maturation of megakaryocytes via its action as a serpin.
J. SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
J. TISSUE SPECIFICITY: Predominantly expressed in mesangial cells.
J. SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
TISSUE-Mesangial cells;
MEDLINE-98376492; PubMed-9710452;
Miyata T., Nangaku M., Suzuki D.,
Okubo K., Kurokawa K.;
                                                                                                                                                                                                                                                                                                                                                  J. Biol.
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Megsin (
Pfam; PF00079; serpin; ; SMART; SM00093; SERPIN; PROSITE; PS00284; SERPII
                                                              EMBL; D88575; BAA31232.1; -. EMBL; AF027866; AAC64506.1; HSSP; P05619; 1HLE.
                                          Genew; HGNC:
MIM; 603357;
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                                InterPro; IPR000215; Serpin
                                                     HGNC:13902;
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DCDA_AQUAE
VATB_TRYCO
VATB_DROME
VATB_CAEEL
OPUE_BACSU
VAB_ACSU
VAB_ACSU
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RX MEDLINE-21085660; PubMed-11217851;
RX MEDLINE-21085660; PubMed-11217851;
RX MEDLINE-21085660; PubMed-11217851;
RX MEDLINE-21085660; PubMed-11217851;
RX Mayari J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishi Y., RX Mayari J., Shinagawa A., Shibata Y., Konno H., Adachi J., Fukuda S., RA Arawa T., Hara A., Fukunishi Y., Konno H., Kasukawa T., Saito R., RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T., RA Kadota K., Matsuda Y., Nikaido I., Pesole G., Quackenbush J., RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H., RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., RA Blake J., Boffelli D., Bojunga N., Carnincl P., de Bonaldo M.F., RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.F., RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., RA Gustincich S., Hill D., Hofmann J., Mazzarelli J., Mombaerts P., RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F., RA Sasaki H., Sato K., Wang K.H., Weitz C., Whittaker C., Wilming L., Ra Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., Ra Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
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ACT_SITE
SEQUENCE
                                                                                                                                                                                                                             EMBL; AF251276; AAF65821.1; -.
EMBL; AK007347; BAB24976.1; -.
EMBL; AK007510; BAB25079.1; -.
HSSP; P01008; 1ATH.
                                                                                                    the European Bioinformatics Institute. The use by non-profit institutions as lower modified and this statement is not removed entities requires a license agreement (See
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Serpin I2 precursor (Serine protease inhibitor 14).
SERPINI2 OR SPI14.
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SPI2_MOUSE
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5-JUN-2002 (Rel. 41,
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                                                                                                                                       SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the En European Bioinformatics Institute. There are no restructure by non-profit institutions as long as its content
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                                                                                       email to license@isb-sib.ch).
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95.0%;
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Pred. No. 2
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                                                                                                                     Usage
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Query Match

Score 51;

DB 1;

Serpin; Serine protease inhibitor.
ACT_SITE 343 344 REACT
SEQUENCE 378 AA; 42560 MW; 664

REACTIVE BOND (BY SIMILARITY). 664F499CCFCE263A CRC64;

PROSITE;

PS00284; SERPIN;

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RESULT 3
PTI6_BOVIN
ID PTI6_BO
AC 002739
AC 002739
AC 002739
DT 30-MAY
DT 15SUE
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SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                   Brain Res. Mol. Brain Res. 42:293-300(1996).

-I- FUNCTION: MAY BE INVOLVED IN THE REGULATION OF SERINE PROTEINASES
-I- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-I- TISSUE SPECIFICITY: BRAIN.
-I- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
                                                                                                                                                                                                                                                                    use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nakaya N., Nishibori M., Kawabata M., Saeki K.; "Cloning of a serine proteinase inhibitor from expression in the brain and characterization of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=Brain;
MEDLINE=97165893; PubMed=9013786;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 002779;
30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation updat
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PROSITE; PS00284; SERPIN;
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SMART; SM00093; SERPIN; 1.
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HSSP; P05120;
                                                                                                                                                                                                                        entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM
                                                                                                                                       InterPro; IPR000215; Serpin.
                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute.
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N-LINKED (GLCNAC. . .) (POTENTIA

I -> M (IN REF. 2; BAB24976).

K -> T (IN REF. 2; BAB24976).

D -> S (IN REF. 2; BAB24976).

KVPMMKA -> RVPTDEV (IN REF. 2; BAB24976).

KVPMMKA -> Y (IN REF. 2; BAB24976).

M; 04DF38BE8545DFA8 CRC64;
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Pred. No.
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AC. . .) (POTENTIAL).
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01-NOV-1997
01-NOV-1997
16-OCT-2001
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15-JUN-2002
15-JUN-2002
Serpin B12.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
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                     Hypothetical MJ0018.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-21623618; PubMed-11604408; Askew Y.S., Pak S.C., Luke C.J., A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SB12_HUMAN
   Methanococcus jannaschii
                                                                                                                                Y018_METJA
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9; Conserv
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Metazoa; Chordata; C
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                                                                                                                                                                                                                                                                                                                                    Score 47;
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                                                                                                                                PRT;
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Sutton G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D.,
Kerlavage A.R., Dougherty B.A., Tomb J.-F., Adams M.D., Reich C.I.,
Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,
Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D.,
Utterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C.,
Cotton M.D., Roberts K.M., Hurst M.A., Kalne B.P., Borodovsky M.,
Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.,
"Complete genome sequence of the methanogenic archaeon, Methanococcus
                                                                                                                                                                                                                                                                                                                                                                                                     TPSP_HUMAN STANDARD; PRT; 406 AA.

P05154; Q9UG30; Q07616;
13-AUG-1987 (Rel. 05, Created)
01-JUL-1993 (Rel. 26, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Plasma serine protease inhibitor precursor (PCI) (Protein C inhibitor)
Plasman serine protease inhibitor-3) (PAI3) (Acrosomal serine protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                SEQUENCE FROM N.A.
MEDLINE=91048502; PubMed=2173165;
Meijers J.C.M., Chung D.W.;
"Evidence for a glycine residue a inhibitor.";
                                                                                                                                            "Characterization of a cDNA for human member of the plasma serine protease i J. Biol. Chem. 262:611-616(1987).
Thromb.
                                                                                                                                                                                                                      Suzuki
                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE-87109153; PubMed-3027058;
                                                                                                                                                                                                                                                                                                                Homo sapiens (Human
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                      SERPINAS ÓR PCI OR PLANH3 OR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TIGR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
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MEDLINE-96337999; PubMed-8688087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                 Suzuki K., Deyashiki
Yamamoto S., Hashimot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Methanocaldococcaceae;
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                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
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Hashimoto S.;
                                                                                                                                                                                                                                                                                                                                                   (Human)
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MEDIJUS-91332018; PubMed-1714450;

Meijers J.C.M., Chung D.W.;

"Organization of the gene coding for human protein C in

"Organization activator inhibitor-3). Assignment of the

chromosome 14.";
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Espana F., Tainer J.A.;
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Kuhn L.A., Griffin J.H., Fisher C.L.,
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                                                                                          SUBCELLULAR LOCATION: Secreted.
TISSUE SPECIFICITY: SYNTHESIZED IN LIVER; SECRETED IN PLASMA.
DISBASE: A DEFICIENCY OF PROTEIN C INHIBITOR IS THE CAUSE OF
COMBINED FACTOR V/VIII DEFICIENCY DISEASE.
SIMILARITY: BELONGS TO THE SERPIN FAMILY.
                                 European Bioinformatics Institute.
                                                                                                                                                                                                                   FUNCTION: INHIBITS
              SWISS-PROT entry is copyright. It is produced through a collable en the Swiss institute of Bioinformatics and the EMBL outst European Bioinformatics institute. There are no restrictions by non-profit institutions as long as its content is in
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                                                                            -diamide
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JOINED.
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G -> R.
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Pred.
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G -> R.
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A -> V (IN ALLELE).
/FTId-VAR_007100.
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L -> P.
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K -> E (IN ALLELE).
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                                subdivision; Pseudomonadaceae;
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VED (GLCNAC. . .)
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DP3B_M
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AC P21174
DT 01-MAY
DT 15-DEC
DE DNA PO
GN DNAN.
OS Microc
OC Bacter
OC ACLINO
OX NCB1_T
RN [1]
RN [1]
RN WEDLIN
RA FUJICA
RT VARIAL
PGENE 9
CC -1- FE
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CCC -1- CA
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Best Local S
Matches 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Crouzet J., Cauchols L., Blanche F., Debussche L., Thibaut D., Rouyez M.-C., Rigault S., Mayaux J.-F., Cameron B.;
"Nucleotide sequence of a Pseudomonas denitrificans 5.4-kilobase | fragment containing five cob genes and identification of structur genes encoding S-adenosyl-L-methionine: uroporphyrinogen III methyltransferase and cobyrinic acid a,c-diamide synthase.";
J. Bacteriol. 172:5968-5979(1990).

J. Bacteriol. 172:5968-5979(1990).

POSTTION A AND C OF EITHER COBYRIIC ACID OR HYDROGENOBRYMIC NH(2) GROUPS ARE PROVIDED BY GLUTAMINE, AND ONE MOLECULE OF A STRUMENT CALLAND ONE MOLECULE OF A STRUMENT CAL
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                                                                                                                                                                                                                                                                                                                                                                         Micrococcus luteus (Micrococcus lysodeikticus).
Bacteria; Actinobacteria; Actinobacteria (class);
Actinomycetales; Micrococcineae; Micrococcaceae; N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-1991 (Rel. 18, Created)
01-MAY-1991 (Rel. 18, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
DNA polymerase III, beta chain (EC 2.7.7.7) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A., AND SEQUENCE OF 1-15 STRAIN-SC510; MEDLINE-91008975; Pubmed-2211520;
                                                                                                                                                                          variations among eu
Gene 93:73-78(1990)
                                                                                                                                                                                                                          Fujita M.O., Yoshikawa H., Ogasawara N.; 
"Structure of the dnaA region of Micrococcus luteus: conservation
                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE-91033019; PubMed-2172090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR004484; Cbia.
InterPro; IPR002586; Cbia_P.
Pfam; PF01656; Cbia; 1.
TIGRRAMS; TIGR00379; Cbia; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                     Actinomycetales;
NCBI_TaxID-1270;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cobalamin
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SUBUNIT: HOMODIMER.
SIMILARITY: BELONGS TO THE COBB/COBQ FAMILY. COBB SUBFAMILY.
FUNCTION: DNA POLYMERASE III IS A COMPLEX, MULTICHAIN ENZYME RESPONSIBLE FOR MOST OF THE REPLICATIVE SYNTHESIS IN BACTERIA. THIS DNA POLYMERASE ALSO EXHIBITS 3' TO 5' EXONUCLEASE ACTIVITY. THE BETA CHAIN IS REQUIRED FOR INITIATION OF REPLICATION ONCE IT IS CLAMPED ONTO DNA, IT SLIDES FREELY (BIDIRECTIONAL AND ATPINDEPENDENT) ALONG DUPLEX DNA (BY SIMILARITY).

CATALYTIC ACTIVITY: N deoxynucleoside triphosphate - N diphospha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; M59236; AAA25774.1; -. C36144; C36144.
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                                                                                                                                                                                                                                                                                                                                                                              Micrococcus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                            SEQUENCE.

TISSUE-Leukocyte;

TISSUE-Leukocyte;

MEDLINE-92202200; PubMed-1551869;

Dubin A., Travis J., Enghild J.J., Potem;

T "Equine leukocyte elastase inhibitor. Pr

identification as a thymosin-binding pro

" "Piol. Chem. 267:6576-6583(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR; JQ0740; JQ0740.
InterPro; IPR001001; DNA_polIII_beta.
InterPro; IPR001230; Prenyl_site.
InterPro; IPR001230; Prenyl_site.
Pfam; PF00712; DNA_pol3_beta; 1.
Pfam; PF02767; DNA_pol3_beta_3; 1.
Pfam; PF02768; DNA_pol3_beta_3; 1.
SMART; SM00480; POL3BG; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                        SEQUENCE OF 343-362.
MEDLINE-88213423; PubMed-3366785;
Potempa J., Dubin A., Watorek W.,
                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1988 (Rel. 09, Created)
01-FEB-1994 (Rel. 28, Last sequence up
16-CCT-2001 (Rel. 40, Last annotation
Leukocyte elastase inhibitor (LEI).
                                                                                                                                                                                         "Molecular cloning and expression of an elastase inhibitor from horse leucocytes biochem. J. 293:187-193(1993).
                                                                                                                                                                                                                                    Rose-John S.;
                                                                                                                                                                                                                                                MEDLINE=93319507;
Kordula T., Dubin
                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                     NCBI_TaxID-9796
                                                                                                                                                                                                                                                                                                                                              Equus caballus (Horse).
                                                                                                                                                                                                                                                                                                                                                              SERPINB1 OR ELANH2.
                                                                                                                                                                                                                                                                                                                                                                                                                                              ILEU_HORSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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            "An elastase
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SUBUNIT: CONTAINS A CORE (COMPOSED OF ALPHA, EPSILON, AND THETA CHAINS) THAT CAN REPAIR SHORT GAPS CREATED BY NUCLEASE IN DUPLEX DNA. FOR EFFICIENT REPLICATION OF THE LONG, SINGLE STRANDED TEMPLATES, POL III REQUIRES THE AUXILIARY CHAINS BET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAMMA, AND DELTA (BY SIMILARITY).
SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   220
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sstase inhibitor from equine leukocyte superfamily. Further characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                PubMed=7687128;
A., Schooltink
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32624 MW;
                                                                                                                                                                                                                                                                                                                    Perissodactyla;
                                                                                                                                                                                                                                                                                                                                   Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43.9%;
81.8%;
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                           Travis
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                                                                                                                         Potempa J.;
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cytosol belongs and amino acid s
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PRESENTATION OF THE PROPERTY O
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PIR; A28060; A28060.
PIR; A37276; A37276.
PIR; A42421; A42421.
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STRAND
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J. Mol. Biol. 226:1207-1218(1992).
-I- FUNCTION: THIS INHIBITOR IS THOUGHT TO BE INVOLVED IN THE CONTROL OF INTRACELLULAR PROTEIN TURNOVER. BINDS TO THYMOSIN BETA-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Serpin; Serine
MOD_RES 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long a
modified and this statement is not removed.
entitles requires a license agreement (See I
or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00284; SERPIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00093;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -1- SUBCELLULAR LOCATION: Cytoplasmic.
-1- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baumann U., Bode W., Huber R., Travis J., Potem "Crystal structure of cleaved equine leucocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-92389327;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR; S34062; S34062.
PDB; 1HLE; 31-JAN-94.
InterPro; IPR000215; Serpin.
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Biol. Chem. 2
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1 BLOCKED (WITH AN UNKNOWN CHEMICAL GROUP).
4 345 REACTIVE BOND.
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263:7364-7369(1988).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  There are no rest
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Best Local S
Matches 8
                                                                                                                                                                                                                                 SEQUENCE FROM N.A. (
MEDLINE=20461850; Pu
Nakashima T., Pak S.
Clayman G.L.;
                                                                                                         SEQUENCE FROM N.A. (ISOFORM 2).
TISSUE-Placenta;
MEDLINE-21213570; PubMed-11313015;
Abts H.F., Welss T., Scheuring S., Scott F.L., Irving J.A., Michel
Bird P.I., Ruzicka T.;
"Sequence, organization, chromosomal localization and alternative
                                                                                                                                                                                            a serpin
Biochim.
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SEQUENCE
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STRAND
STRAND
                                                                       splicing of the human serine protease inhibitor which is up-regulated in psoriasis.";
DNA Cell Biol. 20:123-131(2001).
                                                                                                                                                                                                                                                                                         "Identification and cDNA cloning of headpin, a no expressed serpin that maps to chromosome 18q."; Biochem. Biophys. Res. Commun. 264:299-304(1999).
                                                                                                                                                                                                                                                                                                                                                                           skin specific, UV-repressible serine ovalbumin serpin family.";
J. Mol. Biol. 293:29-39(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SB13_HUMAN STANDARD; PRT; 391 AA. 09UTV8; 09UBM1; 09UK00; 09HCX1; 16-OCT-2001 (Rel. 40, Created) 16-OCT-2001 (Rel. 40, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Hurpin (HaCaT UV-repressible serpin) (Protease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HELIX
STRAND
                                                                                                                                                                                                                                                                                                                             MEDLINE=99458661; PubMed=10527881; Spring P., Nakashima T., Frederick M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Headpin) (Serpin B13).
SERPINB13 OR PI13.
                                                                                                                                                                                                        "Genomic cloning,
a serpin which is
                                                                                                                                                                                                                                                                                                                                                                                                                             Ruzicka T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Abts H.F., Welss T., Mirmohammadsadegh A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                Cloning and characterization
of keratinocytes.
SUBCELLULAR LOCATION: Cytoplasmic.
ALTERNATIVE PRODUCTS: 2 isoforms;
produced by alternative splicing.
TISSUE SPECIFICITY: SKIN-SPECIFIC.
                                                             FUNCTION: May play a role
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                                                                                                                                                                                              Biophys.
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                                                                                                                                                                                            mapping, structure and promoter analysis of HEADPIN, down-regulated in head and neck cancer cells."; Acta 1492:441-446(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISOFORM 1).
                                                                                                                                                                                                                                                                    (ISOFORM 1)
                                                                                                                                                                                                                                                                                                                                                      (ISOFORM 1).
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                    of hurpin (Protease Inhibitor 13): serine proteinase inhibitor of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         72DED1999371427A CRC64;
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                                                              proliferation
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                           (shown here) and 2;
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                                                                                                                                                                                                                                                                                                                 novel
                                                                                                                                   Irving J.A., Michel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 379;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inhibitor
                                                                                                gene hurpin (PI13),
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differentially
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RESULT 11

SPI2_HUMAN

ID SPI2_HUMAN

AC 075830;
DT 15-JUN-2002
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ACT_SITE
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CONFLICT
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SEQUENCE
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15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Serpin 12 precursor (Myoepithelium-derived serine
(Pancpin) (Protease inhibitor 14) (TSA2004).
SERPINIZ OR PI14 OR MEPI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
EMBL;
EMBL;
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EMBL;
"Suppression of breast myoepithelium-derived s mammary myoepithelial o
                                                                                                                                 SEQUENCE FROM N.A. PubMed-10097100; Xiao G., Liu Y.E.,
                                                                                                                                                                                                                                                                      Ozaki K., Nagata M., Suzuki M., Fujiwara T., Miyo Ohigashi H., Imaoka S., Takahashi E., Nakamura Y. "Isolation and characterization of a novel human gene, pancpin, that is down-regulated in pancreat Genes Chromosomes Cancer 22:179-185(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa;
Mammalia; Eutheria;
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SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed-9624529;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
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L; AJ001697; CAA04936.2; -.
L; AJ001698; CAA04937.1; -.
L; AF169949; AAD55765.1; -.
L; AF218654; AAF72879.1; -.
L; AJ278717; CAC03569.1; -.
L; AJ278717; CAC03569.1; -.
L; AJ278717; CAC03569.1; -.
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SEILINE PROCESSE INHIBITOR; A REACTIV TO SERVING STORY TO SERVING S
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8; Conservative
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Primates;
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S -> N (IN REF. 4).
MISSING (IN REF. 1; CAAO.
G -> S (IN REF. 2).
E -> Q (IN REF. 1; CAAO.4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 331
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Pred. No.
                                                                                                                                     Sang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vo
Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
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-> Q (IN REF. 1;
2CA88558D4BC2B09
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IVE BOND (BY SIMILARITY).
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i; Hominidae;
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"anaschii.";
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To A.FULGIDUS AF0817.
                                                                                            Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann R.D., Sutton G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D., Kerlavage A.R., Dougherty B.A., Tomb J.-F., Adams M.D., Reich C.I., Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A., Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D., Utterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C., Cotton M.D., Roberts K.M., Hurst M.A., Kaine B.P., Borodovsky M., Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.; "Complete genome sequence of the methanogenic archaeon, Methanococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Serpin;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between the Swiss Institute of Bioinformatics and the E the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a license agreement (See http://www.isb-or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
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-: SUBCELLULAR LOCATION: Secreted (Probable).
-: TISSUE SPECIFICITY: Expressed in pancreas and
-: SIMILARITY: BELONGS TO THE SERPIN FAMILY.
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                          STRAIN=JAL-1 / DSM 2661 / ATCC 43
MEDLINE=96337999; PubMed=8688087;
                                                                                                                                                                                                                                                                                 Methanococcus jannaschii.
Archaea; Euryarchaeota; Methanococci; Met
Methanocaldococceae; Methanocaldococcus
MCBI_TaxID=2190;
                                                                                                                                                                                                                                                                                                                                                      Hypothetical
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16-OCT-2001
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AF130470;
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3; PS00284; SERPIN;
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AAD34723.1; -.
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RESULT 13
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                                                                                                                         Pfam; PF02033; RBFA; 1.
ProDom; PD007327; Rib_bind_facta; TIGRFAMS; TIGR00082; TbfA; 1.
                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-9333770; PubMed-9665876;
MEDLINE-9333770; PubMed-9665876;
Fraser C.M., Norris S.J., Weinstock G.M., White O., Sutton G.G.,
Dodson R., Gwinn M., Hickey E.K., Clayton R., Ketchum K.A.,
Sodergren E., Hardham J.M., McLeod M.P., Salzberg S., Peterson J.,
Khalak H., Richardson D., Howell J.K., Chidambaram M., Utterback T.,
McDonald L., Artlach P., Bowman C., Cotton M.D., Fujii C., Garland S.,
Hatch B., Horst K., Roberts K., Sandusky M., Weidman J., Smith H.O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Science 281:375-388(1998).

Science 281:375-388(1998).

-I- FUNCTION: ASSOCIATES WITH FREE 30S RIBOSOMAL SUBUNITS (BUT NOT WITH 30S SUBUNITS THAT ARE PART OF 70S RIBOSOMES OR POLYSOMES).

ESSENTIAL FOR EFFICIENT PROCESSING OF 16S RNA. MAY INTERACT WITH THE 5, TERMINAL HELIX REGION OF 16S RNA (BY SIMILARITY).

-I- SUBCELLULAR LOCATION: Cytoplasmic (Potential).

-I- SIMILARITY: BELONGS TO THE RBFA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-DEC-1998
15-DEC-1998
16-OCT-2001
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                                                                                                                                                                                                                                          EMBL; AE001258; AAC26580.1; TIGR; TP0890; -.
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Bacteria; Spirochaetales;
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                                                   PROSITE; PS01319; RBFA; 1.
PROSITE; PS01319; Complete
FRNA processing; Complete
126 AA; 14127
                                                                                                              PROSITE;
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(Rel. 37, Last sequence update)
(Rel. 40, Last annotation update)
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Pred.
     Score 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HYPOTHETICAL PROTEIN MJ1554.
86CAA62F3854D73F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL
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                                                        D4B19B9861BBD2B3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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21;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pallidum,
     DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A
     1;
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Length 126;
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RESULT 14
ILEU_HUMAN
ID LILEU_HUMAN
ID TILEU_HUMAN
I SERPIN
I SEQUE
RX MEDLI
RA Zeng
RX MEDLI
RA Zeng
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RA STIAU
RT INHIA
RA Vanda
RT PISSU
RX MEDLI
RA SEQUE
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Matches 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P30740;
01-APR-1993 (Rel. 25, Created)
01-APR-1993 (Rel. 25, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Leukocyte elastase inhibitor (LEI) (Monocyte/
                                                                                              EMBL; M93056; -; NOT_ANNOTATED_CDS.

EMBL; AF053630; AAC31394.1; -.

EMBL; BC009015; AAH09015.1; -.

PIR; S27383; S27383.

HSSP; P05619; 1HLE.

ABARTHUS/Ghent-2DPAGE; 4314; IEF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDLINE-92302296; PubMed-1376927;

Remold-O'Donnell E., Chin J., Alberts M.;

"Sequence and molecular characterization of human monocyte/neutrophil elastase inhibitor.";
                                                                                                                                                                                                                                                                                use by non-profit institutions as long modified and this statement is not removed entities requires a license agreement (Second or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ewthe European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Microsequences of 145 proteins recorded in protein database of normal human epidermal k Electrophoresis 13:960-969(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inhibitor) (M/NEI) (EI).
SERPINB1 OR ELANH2 OR PI2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /andekerckhove J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               kasmussen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Keratinocytes;
MEDLINE=93162043; Pub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Structure and sequence of human M/NEI inhibitor), an Ov-serpin family gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zeng W., Silverman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE-98296265; PubMed-9630619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [LEU_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: REGULATES THE ACTIVITY OF THE NEUTROPHIL PROTEASES ELASTASE, CATHERSIN G AND PROTEINASE-3.
SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213:179-187(1998)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   178-185; 204-210 AND 364-371.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PubMed=1286667;
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Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Puype M., Gesser B., Celis J.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                  removed
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                                                                                                                                                                                                                                                                                                           (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (monocyte/neutrophil elastase
                                                                                                                                                                                                                                                                                                                                                          There are no restrictions ong as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
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keratinocytes.";
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Genew; HGNC:3311; MIM; 130135; -.

SERPINB1

130135;

nterPro;

IPR000215; Serpin

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RESULT 15
SX11_CHICK
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                                                                                  Query Match
Best Local :
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Best Local Similarity
                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Uwanogho D., Rex M., Cartwright E.J., Pearl G., Healy C.,
Scotting P.J., Sharpe P.T.;
Scotting P.J., Sharpe P.T.;

*Embryonic expression of the chicken Sox2, Sox3 and Sox11 genes
suggests an interactive role in neuronal development.*;

Mech. Dev. 49:23-36(1995).

*In Function: MAY FUNCTION AS SWITCHES IN NEURONAL DEVELOPMENT.

-1- SUBCELLULAR LOCATION: Nuclear.

-1- TISSUE SPECIFICITY: LOW LEVEL EXPRESSION IS SEEN IN
UNDIFFERENTIATED PROLIFERATING CELLS OF NEURAL EPITHELIUM. A
GREATER EXPRESSION IS SEEN IN THE MATURING NEURONS AFTER THEY
LEAVE THE NEURAL EPITHELIUM. IT IS ALSO FOUND IN THE GUT
EPITHELIUM AND ADREMAL MEDULLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SX11_CHICK P48435;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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PROSITE; PS00284; SERPIN; 1.

Serpin; Serine procease inhibitor.

SERPIN; SERPIN; 1.

    Transcription regulation;
    DNA-binding;

    DNA_BIND
    49
    117
    HMG BOX.

    DOMAIN
    165
    POLY - GLU.

    DOMAIN
    204
    212
    POLY - GLU.

    DOMAIN
    288
    294
    POLY - PRO.

    DOMAIN
    332
    335
    POLY - ARG.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U12534; AAB09664.1; -. HSSP; P48436; 1SX9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-Embryo;
MEDLINE-95267693; PubMed-7748786;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
Transcription factor SOX-11.
                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -1- SIMILARITY: CONTAINS 1 HMG BOX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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2 DLSGIASGGRLYIS 15
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8; Conserv
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                                                                                                                                                                     43503 MW;
                                                                                  42.98; 57.18;
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                                               2;
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Pred. No.
                                                                                  Score 42; DB 1;
Pred. No. 19;
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Search completed: July 11, 2003, 11:55:17 Job time: 2.91268 secs

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Title:
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98
1 ADLSGIASGGRLYISRMMGK 20
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sp_organelle:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

16	15	14	13	12	11	10	w	00	7	o	v	4	w	N	1	Result No.
45	45	45	ŭ	5	46	46	46	46	48	48	50	50	54	83	83	Score
45.9	45.9	45.9	45.9	45.9	46.9	46.9	46.9	46.9	49.0	49.0	51.0	51.0	55.1	84.7	84.7	Query
942	942	942	385	373	400	382	377	327	591	423	615	615	191	380	380	Length
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Q945R3	Q9C5Q8	065309	Q26509	Q9NH65	Q967L9	Q9GPL2	008804	Q9MZ16	Q9RW57	Q9D7P9	Q8TAP0	Q9NUX3	Q63547	Q920J5	Q9D695	ID
Q945r3 arabidopsis	Q9c5q8 arabidopsis	O65309 arabidopsis	Q26509 schistosoma	Q9nh65 trichinella	Q96719 schistosoma	Q9gpl2 schistosoma	O08804 mus musculu	Q9mz16 canis famil	Q9rw57 deinococcus	Q9d7p9 mus musculu	Q8tap0 homo sapien	Q9nux3 homo sapien	Q63547 rattus norv	Q920j5 rattus norv	Q9d695 mus musculu	Description

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Q9LU12	Q8SR34	Q9Y9U0	Q62257	Q98KS9	Q8VHP7	Q8S2S5	91MH6	Q8TJ67	Q97B69	Q28500	Q9GMA8	081060	Q8Q202	Q9YKK2	Q91QZ6	Q9LBR0	Q9SUC1	88888	Q92D31	Q91Z12	Q9CQV3	073860	Q9D154	Q9D7S8	Q9GP13	Q9YE87	031560	Q9SUC2
Q9lul2 blastocysti	æ	Q9y9u0 aeropyrum p	Q62257 mus musculu	Q98ks9 rhizobium l	~	Q8s2s5 thellungiel	Q9hm16 halobacter1		Q97b69 thermoplasm	Q28500 macaca mula	w	O81060 arabidopsis		epiz	Q91qz6 rana tigrin	Q91br0 porphyromon	Q9sucl arabidopsis	Q8y8b8 listeria mo	Q92d31 listeria in	Q91z12 mus musculu		073860 meleagris g	Q9d154 mus musculu	Q9d7s8 mus musculu		Q9ye87 aeropyrum p	O31560 bacillus su	

ALIGNMENTS

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SEQUENCE FROM N.A.	ure 409:685-690(2001).	Hayashizaki Y.; "Functional annotation of a full-length mouse cDNA collection.";		Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,	Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch KF.,		Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,	Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,	Blake J., Bottelli D., Bojunga N., Carninci P., de Bonaldo M.F., Brownstein M.J., Bult C., Fletcher C., Fuilta M., Gariboldi M.,	Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,	Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,	Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,	Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,	lov S., Casavant T.,	., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito		Y., Konno H., Adachi J., Fukuda	Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,	MEDLINE=21085660; PubMed=11217851;	STRAIN=C57BL/6J; TISSUE=SKIN;	SEQUENCE FROM N.A.	[1]	NCBI_TaxID=10090;	Sciurogna	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	Mus musculus (Mouse).	SERPINB7 OR 4631416M05RIK.	4631416M05Rik protein (Megsin).	(TrEMBLrel. 21, Last annotation		(TrEMBLrel. 17, Created)	••	Q9D695 PRELIMINARY; PRT; 380 AA.	ULT 1 695

Rodentia; Sciurognathi; Muridae;

Murinae;

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RESULT 3
Q63547
ID 9635
AC Q635
DT 01-N
DT 01-N
DT 01-S
CG-2
GN ZG-2
GN ZG-2
GN Ratt
OC Euka
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Q920J5
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Matches 16
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01-NOV-1996
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Pfam; PF00079; Serpin; 1.
SMART; SM0093; SERPIN; 1.
PROSITE; PS00284; SERPIN; UNKNOWN_1.
PROSITE; PS00284; 43050 MW; C924(
                                                                                                                                                                  Q63547
Q63547;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Serpin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mesangioproliferative nephritis.";
Kidney Int. 60:641-652(2001).
-i-SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; AF105329; AAL16769.1; -.
InterPro; IPR000215; Serpin.
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Q920J5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mesangioproliferative nephritis.";
Kidney Int. 60:641-652(2001).
EMBL; AK014524; BABB99410.1; -.
EMBL; AF105328; AAL16768.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nangaku M., Miyata T., Suzuki D., Umezo
Yagi M., Nagano N., Inagi R., Kurokawa
"Cloning of rodent megsin revealed its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Megsin.
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01-DEC-2001
                        Rattus norvegicus
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InterPro; IPR000215; Serpin.
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Yagi M., Nagano N., Inagi R., Kurokawa K.;
"Cloning of rodent megsin revealed its up-regulation in
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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vegicus (Rat).
Metazoa; Chordata;
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G (TrEMBLrel.
CTrEMBLrel.
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Pred. No.
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Pred. No.
Craniata; Vertebrata;
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  Euteleostomi;
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                                                                                                                                                                                                                                                                                                                                                                                                         0;
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Q8TAPO
AC Q
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Q9NUX3
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Q8TAP0;
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Query Match
Best Local S
Matches 10
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Best Local
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Pfam; PF01344; Kelch; 5.
SMART; SM00225; BTB; 1.
PROSITE; PS50097; BTB; 1.
SEQUENCE 615 AA; 68139 M
                                                                                                                                                                                                                               Nishikawa T., Nagai K., Sugano S., Aotsuka S., Yoshikawa Matsunawa H., Ishii S., Kawai Y., Saito K., Yamamoto J., Nakamura Y., Nagahari K., Masuho Y., Sasaki N.; "NEDO human cDNA sequencing project."; "NEDO human cDNA sequencing project."; Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases. EMBL, AK001940; BAA91990.1; "HSSP; Q05516; 1CS3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9NUX3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDNA FLJ11078 fis,
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01-DEC-2001
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STRAIN-WISTAR; TISSUE-PANCREAS;
Cronshagen U., Chen C., Kern H.F.;
"A novel protein expressed exclusively
                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; Z30585; CAA83060.1; HSSP; P01008; 1ATH.
                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. TISSUE-PLACENTA; Isogai T., Ota T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR000215; Ser
Pfam; PF00079; Serpin; 1
SMART; SM00093; SERPIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
NCBI_TaxID=10116;
                                                                                                                                                                                                  InterPro; IPR000210; BTB_POZ.
InterPro; IPR001798; Kelch.
                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (MAR-1994)
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454
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                                                           l Similarity
10; Conserv
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AGAASGGRLYIS
                            SGIASGGRLYIS 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                191 AA;
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(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 19, Last annotation update)
78 fis, clone pLACE1005102, weakly similar
                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21825 MW;
                                                                           51.0%;
83.3%;
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57.9%;
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THE SERPIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                           Score 50; DB Pred. No. 9.9; 1; Mismatches
                                                             ;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata;
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                        Sugiyama T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9EC312FDBD169320 CRC64;
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9.9;
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                                                                                        Length 615;
                                                                                                                          CRC64;
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                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
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A Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

RA Salto T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchil P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchil L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

RA Schrimi L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

RA Schrimi L.M., Staubli F., Suzuki R., Tomita M., Wagner L.,

RA Schrimi L.M., Staubli F., Suzuki R., Tomita M., Wagner L.,

RA Schrimi L.M., Staubli F., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,

RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,

RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,

RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,

RA Nordone P., Ringwald M., Rodriguez I., Sakamoto N.,

RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,

RA Havashiraki Y., Stock K., Schoenbach C., Seya T., Kawaji H., Kohtsuki S.,
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Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 68.2 kDa protein.
Homo sapiens (Human).
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9D7P9
Q9D7P9;
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE-21085660; PubMed-11217851; Kawai J., Shinagawa A., Shibata K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001 (TrEMBLrel 01-JUN-2002 (TrEMBLrel 2300003F07Rik protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical SEQUENCE 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg R.; Submitted (APR-2002) to the EMBL/GenBank/DDBJ EMBL; BC026319; AAH26319.1;
                                                                                                                                                Nature 409:685-690(2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-BRAIN;
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                               PROSITE;
                                                  SMART; SM00093;
                                                                              InterPro; IPR000215; Serpin.
                                                                                                                                                                           "Functional annotation of a
                                                                                                                                                                                             Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID-10090;
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Local S
                                                                                                                            SIMILARITY: BELONGS TO L; AKO09018; BAB26028.1;
                                             PF00079; serpin; 1: SM00093; SERPIN;
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                                                                                                               P05619; 1HLE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        al protein.
615 AA; 6
   423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TrEMBLrel.
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(TremBLrel. 17, Last sequence up
(TremBLrel. 21, Last annotation
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   X
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                                  SERPIN;
                                                                                                2300003F07R1k.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
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   47834 MW;
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83.3%;
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                                                                                                                                            TO THE SERPIN FAMILY
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                                                                                                                                                                           full-length mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           159EEDFDE80EE98D CRC64;
   5A22BE2FE51B6120 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yoshino M.,
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9.9;
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RESOLUTION OF THE PROPERTY OF 
RESULT 8
Q9MZ16
ID Q9MZ
AC Q9MZ
AC Q9MZ
DT 01-C
DT 01-C
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OC GNRH
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Best Local
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Q9MZ16;
Q1-OCT-2000
Q1-OCT-2000
Q1-JUN-2001
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Q9RW57;
Q1-MAY-2000
                                                                                                                  GnRH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR003137; PA.
InterPro; IPR000209; Peptidase_
Pfam; PF00225; PA; 1.
Pfam; PF00082; Peptidase_S8; 2.
PRINTS; PR00723; SUBTILISIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Richardson D.L., Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby M., Shen M., Vamathevan J.J., Lam P., McDonald L., Utterback T., Zalewski C., Makarova K.S., Aravind L., Daly M.J., Minton K.W., Fleischmann R.D., Ketchum K.A., Nelson K.E., Salzberg S., Smith H.O., Venter J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-WAY-2000 (TrEMBLrel. 13, Creates 01-WAY-2000 (TrEMBLrel. 13, Last s 01-UN-2002 (TrEMBLrel. 21, Last a Serine protease, subtilase family.
                                           Canis familiaris (Dog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TIGR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               White O., Eisen J.A., Heidelberg J.F., Hickey E.K., Dodson R.J., Haft D.H., Gwinn M.L., Nelson W.C., Rio Moffat K.S., Qin H., Jiang L., Pamphile W., Crosby P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Deinococcaceae; Deinococcus.
NCBI_TaxID=1299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         radiodurans R1."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bacteria; Thermus/Deinococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Deinococcus radiodurans
NCBI_TaxID-9615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00343; GRAM_POS_ANCHORING; PROSITE; PS00138; SUBTILASE_SER; UNKNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AE001935; AAF10389.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Science 286:1571-1577(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Genome sequence of the radioresistant bacterium Deinococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=20036896; PubMed=10567266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-RI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DR0812.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR001899; Gram_pos_anchor
                                                                                                                                                                                                                                                                                                                                                    255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q99405; 1MPT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      346 ADLTGISKSPNLYLSKIVHK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DR0812;
                                                                                                                                                                                                                                                                                                                                                                                                3 LSGIASGGRLYISRMMG 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Complete proteome. 591 AA; 59158 MW;
                                                                                                                                     (TrEMBLIEL.) (TrEMBLIEL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                    PRELIMINARY;
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                                                                                                                                          Last sequence update)
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 591;
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                                              Euteleostomi; Canis.
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Matches 10
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Best Local S
Matches 10
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01-DEC-2001
01-JUN-2002
                                                                                                                                                                                                                                                                               008804;
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Ragoussis J., Bird P.I.;
Ragoussis J., Bird P.I.;
"Comparison of human chromosome 6p25 with murine "Comparison of human chromosome fop25 with murine and the fop25 with murine "Comparison of human chromosome fop25 with human 
                                                                                                                                                                                                  Serpin.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "A new family of 10 murine ovalbumin serpins includes two proteinase inhibitor 8 and two homologs of the granzyme B (proteinase inhibitor 9).";

1. Biol. Chem. 272:15434-15441(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2001 (TrEMBLrel. 19, 01-JUN-2002 (TrEMBLrel. 21, Serine proteinase inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
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InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
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Mol. Endocrinol. 14:671-681(2000).
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Cui J., Smith R.G., Mount G.R., LO J.L., Yu J., Walsh T.
Singh S.B., DeVita R.J., Goulet M.T., Schaeffer J.M., Ch
"Identification of Phe313 of the gonadotropin-releasing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-C57BL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPI12.
                                                                                                                                                                                                                                                    PROSITE; PS00284; SERPIN; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kaiserman D., Knaggs S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165
                                                                                  Similarity
10; Conserv
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10; Conserv
ADLSGIASGGRLYISRMMGK
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                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel.
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                                                                                                                                                                                                  AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Rodentia;
                                                                                                                                                                                                  42535 MW;
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                                                                                                             46.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scarff K.L.,
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                                                                                  5.
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Last annotation update)
NK13.
                                                                               Score 46; DB Pred. No. 26; 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata;
Sciurognathi; Muridae;
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                                                                                                                                                                                                  9660E8F3A41EE47A CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 K.L., Gillard
Benarafa C.,
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Remold-O'Donnell
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                                                                                                                                    Length 377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chromosome 13
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Murinae; Mus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , Bird P.I.;
two homologs c
me B inhibitor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cadman
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                  Yan Y.T., Liu S.X.;
"Serpin Sequence of Schistosoma Ja
Submitted (OCT-2000) to the EMBL/(
EMBL; AF317731; AAG45932.1; -.
InterPro; IPR000215; Serpin.
Pfam; PF00079; Serpin; 1.
                                                                                                                                                                                                                       01-DEC-2001
01-DEC-2001
01-MAR-2002
                                                                    Protease;
SEQUENCE
                                                                                                                                                                                                                                                Q967L9;
Q967L9;
                                                                                            YAN Y.T., LIU S.X., Song G.C.;
YAN Y.T., LIU S.X., Song G.C.;
"Full-length of Scrpin Sequence of Schistosoma submitted (MAY-2001) to the EMBL/GenBank/DDBJ COLORS TO THE SERPIN FAMILY. EMBL, AF380366; AAK57435.1; -
InterPro; IPR000215; Serpin.
                                                                                                                                                                                                                                                                                                                                                                          NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-2001
01-MAR-2001
01-JUN-2002
                                                                                       Pfam;
                                                                                                                                                                   NCBI_TaxID=6182;
                                                                                                                                                                            Schistosomatoidea;
                                                                                                                                                                                    Eukaryota;
                                                                                                                                                                                              Schistosoma
                                                                                                                                                                                                              Serine
                                                                                                                                                                                                                                                                                                                                                                                             SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-CHINESE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schistosomatoidea;
NCBI_TaxID=6182;
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                                                                                   PF00079; serpin;
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                                 Similarity 9; Conserv
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ADLSGISSKNNLYVN
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                                                                     Serpin
400 A
                                                                                                                                                                            a japonicum (Blood fluke).
  Metazoa; Platyhelminthes;
atoidea; Schistosomatidae;
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                                                                                                                                                                                                             (TrEMBLrel. 19
(TrEMBLrel. 19
) (TrEMBLrel. 20
ease inhibitor
                                                                                                                                                                                                                                                                                                                                                                           382 AA;
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Metazoa; Platyhelminthes;
toidea; Schistosomatidae;
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                                  Conservative
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Last sequence up
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Last sequ
Last anno
                                 Pred. No. 28; 3; Mismatches
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EMBL/GenBank/DDBJ
                                                   Score 46;
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                                                                     36BB918B393689BF CRC64;
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annotation
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RESULT

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Trichinella spiralis.";

Submitted (FEB-2000) to the EMBL/GenBank/DDBJ

-! SIMILARITY: BELONGS TO THE SERPIN FAMILY.

EMBL; AF231948; AAP63473.1; -...

HSSP; P01008; 1ATH.

InterPro; IPR000215; Serpin.
                                                                                                                                Serpin.
                                                                                                                                                                   Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.

'- SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; U11023; AAA50230.1; -.
EMBL; AF043997; AAC02994.1; -.
Interpro; IPR002015; Serpin.
Pfam; PF00079; serpin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
Ogundipe J.O., Rashid
Submitted (JUN-1994) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schistosoma japonicum (Blood fluke).
Eukaryota; Metazoa; Platyhelminthes;
Schistosomatoidea; Schistosomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-CCT-2001 (TrEMBLrel. 18,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1.
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Trichinella spiralis.
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                                                                                                                                                                                                                                                                                                                        Hooker C.W., Brindley P.J.;
                        Local Similarity 64.
les 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      293
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10; Conserv
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to the
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Last sequence update)
Last annotation updat
                      Score 45; DB
Pred. No. 40;
2; Mismatches
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Last annotation update)
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Pred. No.
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                                                                                                            652E15AD670C4719
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Schistosoma.
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                                       40;
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J databases
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Best Local
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                                                                                                                         SUZUKI M., Takahashi T., Komeda
"CORYMBOSA2 (CRM2), a gene requi
Arabidopsis thaliana.";
Submitted (DEC-2000) to the EMBI
EMBL; AF327068; AAK16435.1; -.
InterPro; IPR001159; DS_RBD.
InterPro; IPR00051; SAM_bind.
Pfam; PF00035; dsrm; 1.
SEQUENCE 942 AA; 104454 MW;
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01-JUN-2001
01-JUN-2002
CORYMBOSA2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 104.5 kDa protein.
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosida
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
NCBI_TaxID=3702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9C5Q8;
                                                                                                                                                                                                                                                                                                                                                                                   Arabidopsis thàliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta
Spermatophyta; Magnoliophyta; eudicotyledons; core o
eurosids II; Brassicales; Brassicaceae; Arabidopsis
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InterPro; IPR000051;
Pfam; PF00035; dsrm;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mutants.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    065309;
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                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=3702;
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InterPro; IPR001159; DS_RBD.
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                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                      Match
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                                          Similarity 9; Conserv
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  ADLSGIASGGRLYISRMMGK 20
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942 AA; 1
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                                                                                                                                104454 MW;
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4; Mismatches 7
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Search completed: July 11, 2003, 11:59:02 Job time: 10.7318 secs

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Gapop 10.0 , Gapext 0.5
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AAW77753	AAM85183	ABG27218	ABB68256	ABB64300	AAB18250	ABG04001	ABG09655	ABG06618	ABG10815	ABG06075	ABB71439	AAW56569	AAW18306	AAG90902	ABB71685	AAU36616	AAY57586	ABG15599	AAE10377	AAB79070	AAG90403	AAB83075	AAB24142	AAY08254	AAR48379	ABB93723	AAG37818	AAG25579	AAB79071	AAG37819	AAG25580	AAG37820	AAG25581	ABB49942	
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ALIGNMENTS

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AAR57113 standard; peptide; 5 AA.

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                                                                                                                                                                                                                                                              Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                                                                                                  17-JUL-1992;
04-MAR-1993;
             WPI; 1994-058782/08
                                      Ishida N, I
Tsujimoto M,
                                                                                                                                                                                   23-FEB-1994.
                                                                                                                                                                                                           EP583884-A.
                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                 Human megakaryocyte differentiation factor peptide
                                                                                                                                                                                                                                                                                                                                          16-AUG-1994 (first entry)
                                                                            (SUNR ) SUNTORY LTD. (TSUJ/) TSUJIMOTO M.
                                                                                                                                                         19-JUL-1993;
                                      Iwasa F, Kuril
M, Tsuruoka N,
                                                                                                                  92JP-0212305
93JP-0067339
                                                                                                                                                         93EP-0305654
                                                   Kurihara T,
                                       Yamaguchi N, Ya
                                      (, Nakazato
Yamaichi K;
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RESULT 2
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03-JUN-1999;
28-SEP-1999;
30-SEP-1999;
01-DEC-1999;
02-DEC-1999;
The present invention describes a method for identifying a bacteriophage coding region encoding a product active on an essential bacterial target. The method comprises identifying a nucleic acid sequence encoding a gene product that provides a bacteria-inhibiting function when an
                                                                                                                                                                             Pelletier
                                                                                                                                                                                                                                                                                                               03-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                              Bacteriophage; antimicrobial; bacterial growth inhibition; h
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol. wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoieti making it useful for treatment of diseases involving a decrease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New megakaryocyte differentiation factor - isolated from human epidermoid carcinoma cells, used to treat conditions involving decrease in platelets
                                                                 Example
                                                                                   Identifying a bacteriophage coding region for treating bacterial infections comprises identifying a nucleic acid encoding a produinhibits bacteria when a bacteriophage infects a bacterium
                                                                                                                                                                                                    (PHAG-) PHAGETECH INC
                                                                                                                                                                                                                                                                                                                                                                WO200032825-A2
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                                                                                                                                         2000-412361/35.
DB; AAA69042.
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99US-0407804.

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99US-0454252.
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                                                                            The invention relates to a novel Staphylococcus aureus polypeptide (STAAU_R2), and it's use in drug screening assays. The polypeptide of invention has antibacterial activity. The compound active on STAAU_R2 useful for the manufacture of an antibacterial agent or for the manufacture for medicament for treating or preventing a bacterial infection. The sequence represents the amino acid sequence of S. aureu
                                                                                                                                                                              Use of a Staphylococcus aureus (STAAU_R2) polypeptide or composition comprising STAAU_R2 and polypeptide encoded by bacteriophage open reading frame that specifically interacts with STAAU_R2, for identify a compound active on STAAU_R2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                uncharacterised bacteriophage infects a pathogenic bacterium. The compound active on a target of a bacteriophage inhibitor protein in a bacterial is used to treat or prevent a bacterial infection in an animal. AAA68243 to AAA69442 and AAB16523 to AAB16954 represent bacteriophage nucleotide and protein sequences which are used in the exemplification of
                                                                                                                                                          Claim 2;
                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                    WPI;
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20-JUN-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                        Staphylococcus
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DB; ABN86788.
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2001US-0885561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                       2001WO-CA01754
                                              AA;
                                                                                                                                                                                                                                                                         Gros
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               σ
                                                                                                                                                                                                                                                                                                                                                                                                                          aureus
                                                                                                                                                                                                                                                                                                                                                                                                                                                         screening; antibacterial; bacterial infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               aureus 44AHJD ORF
                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein;
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                                                                                                                                                                                                                                                                         Dubow
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                        3
           Score 26;
Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25 amino acid sequence
           DB
63;
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63;
                       23;
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                      Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                       58;
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                                                                                                                                                                                           identifying
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                                                                               aureus
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is
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RESULT 4
ABP29986
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                                                                                                                                                     CC Streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS
CC (Streptococcus pyogenes), comprising one of 5483 sequences ($1), given in
CC the specification. The proteins have antibacterial and antiinflammatory
CC activity. (I), nucleic acids encoding (I), ABN66044-ABN71526 and
CC antibodies that bind (I) are used in the manufacture of medicaments for
CC the treatment or prevention of infection or disease caused by
CC Streptococcus bacteria, particularly S. agalactiae and S. pyrogenes.
CC Nucleic acids encoding (I) are used to detect Streptococcus in a
CC biological sample. (I) is used to determine whether a compound binds to
CC (I). A composition comprising (I) or a nucleic acid encoding (I), may be
CC used as a vaccine or diagnostic composition. The disease caused by
CC Streptococcus that is prevented or treated may be meningitis. Nucleic
CC acid encoding (I) may be used to recombinantly produce (I) and may be
CC used in gene therapy. Antibodies to (I) are used for affinity
CC chromatography, immunoassays, and distinguishing/identifying
                                                                        Query Match
Best Local
                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                         New Streptococcus protein for the treatment or prevention of infection or disease caused by Streptococcus bacteria, such as meningitis, and for detecting a compound that binds to the protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 group A streptococcus; antiinflammatory; infer
                                                                                                                   Sequence
                                                                                                                                               Streptococcus proteins.
                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a protein (ABP25413-ABP30895) from group
                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 4037; 4525pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tettelin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Telford J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-OCT-2000;
24-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-OCT-2001; 2001WO-GB04789
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Streptococcus pyogenes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae; group A streptococcus; Streptococcus pyogenes; antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Streptococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         АвР29986;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CHIR-) CHIRON SPA.
(GENO-) INST GENOMIC RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-352536/38
DB; ABN70617.
32
                                                        Similarity
5; Conser
                           LYDAK 5
LYDAK 36
                                                                                                                   69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Masignani V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; 2000GB-0026333.
; 2000GB-0028727.
; 2001GB-0005640.
                                                        Conservative
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                                                                                                                   Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polypeptide SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    infection;
                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Margarit Ros YI,
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                                                                      Score 26;
Pred. No.
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                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 meningitis; gene therapy.
                                                                   76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grandi G,
                                                                                    23;
                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fraser
                                                                                      69;
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                                                       Gaps
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RESULT

RESULT 6
AAB51492
ID AAB5

AAB51492

standard;

Protein;

118

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                                                                                                                                                          The invention relates to a protein (ABP25413-ABP30895) from group B CC streptococcus/GBS (Streptococcus agalactiae) or group A streptococcus/GAS (Streptococcus pyogenes), comprising one of 5483 sequences (S1), given in CC the specification. The proteins have antibacterial and antiinflammatory activity. (I), nucleic acids encoding (I), ABN66044-ABN71526 and CC antibodies that bind (I) are used in the manufacture of medicaments for the treatment or prevention of infection or disease caused by CC Streptococcus bacteria, particularly S. agalactiae and S. pyrogenes. CC Nucleic acids encoding (I) are used to detect Streptococcus in a CC biological sample. (I) is used to detectmine whether a compound binds to CC (I). A composition comprising (I) or a nucleic acid encoding (I) may be used to recombinantly produce (I) and may be cold encoding (I) may be used to recombinantly produce (I) and may be considered and sent therapy. Antibodies to (I) are used for affinity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP29293
                                                                  Query Match
Best Local
                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                 New Streptococcus protein for the treatment or prevention of infection or disease caused by Streptococcus bacteria, such as meningitis, and for detecting a compound that binds to the protein - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      group A streptococcus; antlinflammatory; infe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Streptococcus; GAS; GBS; group B streptococcus; Streptococcus agalactiae; group A streptococcus; Streptococcus pyogenes; antibacterial; antilnflammatory; infection; vaccine; meningitis; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Streptococcus pyogenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP29293 standard; Protein;
                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 3912; 4525pp; English.
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N-PSDB; ABN69924.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Telford J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-MAY-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-JUL-2002
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                                                                                                                                     Streptococcus
                                                                                                                                                  chromatography,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GENO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CHIR-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-OCT-2000;
24-NOV-2000;
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33
                          1 LYDAK 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHIRON SPA.
INST GENOMIC
                                                     Similarity 5; Conserv
LYDAK 37
                                                                                                             70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; 2000GB-0026333.
; 2000GB-0028727.
; 2001GB-0005640.
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                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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                                                                                                             Ą,
                                                                                                                                    proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polypeptide
                                                                                                                                                    immunoassays, and distinguishing/identifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RES
                                                                100
                                                                    .0%;
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                                                     0
                                                                  Score 26;
Pred. No.
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                                                     Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YI,
                                                                                 ВВ
                                                                                 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Grandi
                                                     0,
                                                                                 Length
                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fraser
                                                                                 70;
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                                                     Gaps
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RESULT 7
AAB51494
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                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                               rissues disclosed in the specification. The nucleic acids, proteins, antibodies and (ant)agonists are useful in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and ovarian cancer, and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infectious diseases such as viral, bacterial, fungal and
   Human
                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 400; 410pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acid molecules encoding 45 human secreted proteins for diagnosing, preventing, treating or ameliorating medical conditions used as food additives or preservatives -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAR-1999;
07-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200058495-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer;
vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic;
cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cytostatic;
                               16-FEB-2001
                                                             AAB51494;
                                                                                           AAB51494 standard; Protein; 118
                                                                                                                                                                                                                                                                                                                                    parasitic infections. The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-MAR-2000; 2000WO-US07661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neurological disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human secreted protein BLAST search protein SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ( HUMA - )
                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e invention relates to the isolation of genes AAC93310-C93334 encoding e human secreted proteins AAB51380-B51423. The genes and proteins are eful for preventing, ameliorating or treating medical conditions, e.g. protein or gene therapy. The genes are isolated from a range of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-611720/58
                                                                                                                                                                      77
                                                                                                                                                                                     1 LYDAK 5
                                                                                                                                                                                                                             Similarity
5; Conser
                                                                                                                                                                                                                                                                                                                      invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HUMAN GENOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ruben SM,
                                                                                                                                                                                                                                                                                         118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunosuppressive;
                                                                                                                                                                                                                               Conservative
                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0126504.
2000US-0174847.
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                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                         ₽,
protein BLAST search
                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Komatsoulis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection; human;
                                                                                                                                                                                                                                             .0%;
                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                            Score 26;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nootropic; neuroprotective; antiviral;
                                                                                                                                                                                                                             Mismatches
protein SEQ
                                                                                                                                                                                                                             1.4e+02;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               secreted protein.
                                                                                                                                                                                                                                                                                                                                  is a protein isolated in the
IJ
                                                                                                                                                                                                                                                          Length 118;
                                                                                                                                                                                                                             Indels
 NO:
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                                                                                                                                                                                                                             Gaps
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RESULT 8
AAG28475
ID AAG28475
XX AAG2

17-OCT-2000

(first

entry)

AAG28475 standard;

Protein;

Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter

promoter;

Arabidopsis thaliana protein fragment SEQ ID NO: 33705.

Вþ Š

77

LYDAK

81

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Query Match
Best Local :
                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (a) cancer, e.g. breast and ovarian cancer, and other cancers of the adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune disorders e.g. Addison's disease, allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis, disease, multiple sclerosis, rheumatoid arthritis and ulcerative colltis; (c) cardiovascular disorders such as myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f) infectious diseases such e.g. cerebral anoxia and epilepsy; and (f) infectious diseases such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to the isolation of genes AAC93310-C93354 encoding the human secreted proteins AAB51380-B51423. This sequence represents a peptide fragment homologous to the protein encoded by the gene isolated in the present invention. The sequence is a search result from a BLASTX homology search. The genes and proteins are useful for preventing, ameliorating or treating medical conditions, e.g. by protein or gene therapy. The genes are isolated from a range of human tissues disclosed in the specification. The nucleic acids, proteins, antibodies and (antipagonists are useful in the diagnosis, treatment and prevention of:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cyrostatic; immunosuppressive; nootropic; neuroprotective; antiviral; antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer; vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic; vulnerary; anticonvulsant; dencer; cardiovascular disorder; cardiov
                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid molecules encoding 45 human diagnosing, preventing, treating or ameliorat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAR-1999; 99US-0126504
07-JAN-2000; 2000US-0174847
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-MAR-2000; 2000WO-US07661
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15-SEP-1999;
16-SEP-1999;
20-SEP-1999;
22-SEP-1999;
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                       06-SEP-2000.
                                                                                                                       Protein identification; hybridisation assay; gentermination sequence.
                                                                                                                                                                                            Arabidopsis thaliana
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                                                                                       Arabidopsis thaliana
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2 LYDAK 6
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Similarity 100.
5; Conservative
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netic mapping; gene expression control; promoter
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RESULT 10
ABG24830
ID ABG24
XX ABG24
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XX ABG24
XX IN-FE
CT 18-FE
CXX Human
KW Human
KW Food
XX Food
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12-OCT-1999;
13-OCT-1999;
                                                                       31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                           Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                     Novel
 Drmanac RT,
                                    (HYSE-) HYSEQ INC
                                                                                                                           30-MAR-2001; 2001WO-US08631.
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Best Local S
Matches 5
                          Buchrieser C, Frangeul L,
Dussurget O, Chetouani F,
Daniels J, Goebel W, Kref
                                                                                                                                                                                                        11-APR-2000;
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diagnostics, forensics, gene mapping, identification of
responsible for genetic disorders or other traits and to
biodiversity -
     Dominguez-Bernal
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DB; AAS89017.
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    gene therapy; vaccine; biosynthesis; biodegradation;
bacterial infection; disease.

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geul L, Couve E, Rus
uani F, Nedjari H, G
W, Kreft J, Kuhn M,
Garrido-Garcia P, T
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Pred. No. 2.6e+02;
; Mismatches 0;
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, Glaser P, Kunst F, Cos
M, Ng E, Vazquez-Boland
, Tierrez-Martinez A, Ame
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231 LYDAK 235

1 LYDAK 5

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monocytogenes and related organisms, and for studying genetic monocytogenes and related organisms, and for studying genetic polymorphisms and other genomes. The present invention. Protein encoded by the genome sequence of the present invention. Proteins captured by the genome sequence are useful for raising specific antibodies, identification of L. monocytogenes and related organisms, and for studying genetic polymorphisms and biodegradation, especially biosynthesis of Vitamin for biosynthesis and biodegradation, especially biosynthesis of Vitamin B12. The genome sequence and proteins encoded by it are also useful for selecting compounds that regulate gene expression and cell replication and modulate L. monocytogenes-related diseases. In addition, the genome sequence and proteins encoded by it are useful in pharmaceutical and vaccines compositions for the treatment or prevention of infections by L. monocytogenes and related organisms.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fire wipo.int/pub/published_pct_sequences.
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Perez-Diaz J, مر
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المان E, De Pa'
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                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates
                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
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Garcia Del Portillo
Wehland J, Kaerst U
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Pred. No. 3.1e+02;
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RESULT 12 AAG25581 25-FEB-1999; 05-MAR-1999; 09-MAR-1999; 23-MAR-1999; 25-MAR-1999; 29-MAR-1999; 01-APR-1999; 06-APR-1999; Protein identification; signal transduction pathway; hybridisation assay; genetic mapping; gene expression 17-OCT-2000 25-FEB-2000; EP1033405-A2 Arabidopsis thaliana AAG25581 standard; Protein; 263 06-SEP-2000 AAG25581; thaliana (first entry) 2000EP-0301439 99US-0121825. 99US-0123548. 99US-0123548. 99US-0125788. 99US-0126264. 99US-0126785. 99US-0127462. protein fragment SEQ A gene expression H ŏ. metabolic control;

pathway;

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20-APR-1999

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Similarity 100.
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990S-0132486
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RESULT 14

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Matches 5; Conserv
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Search completed: July 11, 2003, 11:54:24 Job time: 4.86902 secs

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Title: Perfect:

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Scoring table:

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US-09-177-249-236

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US-08-858-207A-660

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US-09-129-030-6

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US-08-411-977-34

US-09-300-909-20
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US-08-472-659-7
NAME: MCGOWAN, MAICOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 0015
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEPHONE: (703) 836-2021
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7, Application US/08472659 Patent No. 5831030 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
SOFTWARE: PatentIn Release #1.0, Ver
CURRENT APPLICATION NUMBER: US/08/472,659
FILING DATE: 07-JUN-1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
TO E-067320
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FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
ATTORNEY/AGENT INFORMATION:
NAME: MACCOUNTY
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APPLICANT:
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CITY: Alexandria
STATE: Virginia
COUNTRY: United St
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YAMAGUCHI, NO. 5831030cmi
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KURIHARA, Tatsuya
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TSUROUOKA, No. 58
NAKAZATO, Hiroshi
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US-08-640-389A-10
US-08-618-957A-10
                                                                                                                                                  001560-248
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Result

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Score

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Length

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Post-processing:

Maximum Minimum

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; MOLECULE TYPE: US-08-474-661-7
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   Query Match
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GENERAL INFORMATION:
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Best Local :
                                                                                                                                       TELEFAX: (703) 836-6620 INFORMATION FOR SEQ ID NO: 7:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                 FILING LANGE 435 CLASSIFICATION: 435 PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin ReL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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TITLE OF I
                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/091,02 FILING DATE: 14-JUL-1993 APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                           TYPE: amino acid
STRANDEDNESS: si
                                                                                                                                                                                                   REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
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nes 5; Conserv
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TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: Virginia
                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                 APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993
                                                                                                         ENGTH:
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                                                                                                                                                                                                                                   REA, TERESA STANEK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCES: 34
                                                                                                         5 amino acids
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George Mason Bldg.,
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                                                              linear
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                                              peptide
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 100.0%; Score 26;
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g., Washington & Prince Sts
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Pred. No. 1.9e+0
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DB 2;
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Length 5;
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Best Local S
Matches 5
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                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Polocial
                                                                                                                                                             STRANDEDNESS:
TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 14-JUI
                                                                                                                                                                                         TYPE: amino acid
                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 39 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/611,977 FILING DATE: 06-MAR-1996
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                                                                                                                                                                                                           ENGTH:
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                                                             Similarity
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                                                             Conservative
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YAMAICHI, KOZO
YAMAGUCHI, No. 5972886omi
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                                                                                                                                                             linear
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14-JUL-1993
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                                                                                                                                                                     single
                                                            100.0%; Score 26; DB 2; 100.0%; Pred. No. 1.9e+05; Eive 0; Mismatches 0;
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0; Mismatches 0;
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                                                                                          Length 5;
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APPLICANT:

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US-08-474-661-34
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             Sequence 34, Application US/08474661
Patent NO. 5874253
GENERAL IMPORMATION:
APPLICANT: TSUJIMOTO, Masafumi
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Best Local Similarity
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Patent No. 5
                                                                                                                                                                                                                   Matches
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/472,659
FILING DATE: 07-JUN-1995
CLASSIFICATION: 536
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 00 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 0 FILING DATE: 14-JUL-1993 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: JP 5
FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
APPLICANT: TSUJIMOTO, Masafumi
APPLICANT: IWASA, Fuyuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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YAMAGUCHI, NO. 5831030oml
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NAKAZATO, Hiroshi
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                                                                                                                                                                       Patent No. 5972886 GENERAL INFORMATION:
                                                                                                                                                                                         Sequence 34, Application US/08611977 Patent No. 5972886
                                                                                                                                                                                                                                                                                                                                                                Matches
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPALIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION WIMBER: US/O8/474,661
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
CLASSIFICATION: 435
                                  APPLICANT:
APPLICANT:
APPLICANT:
 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: JP 4 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US OF FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 30, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: REA, TERESA STANEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                              121 LYDAK 125
                                                                                                                                                                                                                                                                                                                              1 LYDAK 5
 INVENTION:
            MIURA, Kenju
ISHIDA, NO. 5972886uhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. 5972886omi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E: Burns, Doane, Swecker & Mathis
George Mason Bldg., Washington & Prince Sts.
                                                                                                 TSUROUOKA, No. 5972886uo
NAKAZATO, Hiroshi
                                                                                                                                   IWASA, Fuyuk
                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (703)
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YAMAICHI, Kozo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
                                                                                                                                                       TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISHIDA, No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
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                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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MEGAKARYOCYTE DIFFERENTIATION FACTOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JP 5-067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JP 4-212305
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Pred. No. 1.9e+02;
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CORRESPONDENCE ADDRESS:

ADDRESSEE

Burns, Doan

Doane, Swecker & Mathis

Alexandria

Virginia P.O.

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Best Local Similarity
""" hes 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                             US-09-300-909-20
                                                                                                                                         TITLE OF INVENTION: PREPARATION OF HUTTILE OF INVENTION: HELICASE ACTIVITY NUMBER OF SEQUENCES: 27 COMPUTER REALABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
                                   APPLICATION NUMBER: US 60/
FILING DATE: 01-MAY-1998
INFORMATION FOR SEQ ID NO: 20:
                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                    equence 20, Application US/09300909 (tent No. 6306580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                           PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
US 60/083,942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-UUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 14-JUL-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
PRIOR APPLICATION UNBER: US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
                                                                                                       APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 06-MAR-1996 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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ENGTH:
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 630 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       836-2021
                                                                                                                                                                                                                                                                     PREPARATION OF HUMAN PAPILLOMAVIRUS E1 HAVING HELICASE ACTIVITY AND METHOD THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
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Pred. No. 1.
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                                                                                                                                                         Version #1.30 (EPO)
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.s 0;
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1 LYDAK 5

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Best Local Similarity
watches 5; Conserve
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; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-300-909-20
                                                         US-08-936-165A-513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-936-165A-513
Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                NAME: Ginmi, Edward R
REGISTRATION NUMBER: 38,891
REFERENCE/DOCKET NUMBER: P5
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-4478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/0 FILING DATE: 24-SEP-1996 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKline
STREET: 709 Swedeland
CITY: King of Prussia
                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 536
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                     TOPOLOGY: 1
                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM CON
OPERATING SYSTEM:
                                                                                                            TYPE: amino acid
                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                          LENGTH:
                                                                                                                                                                                   TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 513, App.
No. 6348582
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Ward, Judith
Oc. 6348582el P.
INVENTION: Polypeptides an
INVENTION: 534
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                                                                                                                          88 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/08936165A
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Reichard, Richard
Rosenberg, Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nicholas, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Knowles, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Burnham, Martin
                                                                                     linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Black,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lonetto, Michael
                                                                                                                                                                                                                                                                                                                                                                                                        IBM Compatible
                                                                      Protein
                                                                                                                                                                                                                                                                                                                                      24-SEP-1997
                                                                                               single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Michael .
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 Score 24; DB Pred. No. 1.2e

1; Mismatches
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Pred. No. 3.
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2.2e+02;
0;
                              DB 4;
                                                                                                                                                                                                                                                                                                                                                                                2.0
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                           Length 88;
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48 MYDAK 52

US-09-023-023-2

Sequence 2, Application US/09023023 Patent No. 6121018

GENERAL INFORMATION:
APPLICANT: Kristine
TITLE OF INVENTION:

Kristine Kay Kikly

Interleukin-1 Beta Converting Enzyme Like Apoptosis Pr

NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKline
STREET: 709 Swedeland

STREET: 709 SWEULE.... CITY: King of Prussia

Road

Beecham Corporation

STATE: PA

COUNTRY:

USA

COMPUTER READABLE FORM:

19406

COMPUTER: IBM Compatible OPERATING SYSTEM: DOS MEDIUM TYPE: Diskette RESULT 9

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US-08-742-621-1
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                                                                                                                                                                                                                         Sequence 1, Application US/08742621 Patent No. 5856129
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/042,030
FILING DATE: MATCh 27, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Han, William T
REGISTRATION NUMBER: 34,344
REFERENCE/DOCKET NUMBER: GH50013
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
                                                                                                                   GENERAL INFORMATION:
APPLICANT: HILLMAN, JENNIFER L.
APPLICANT: COLEMAN, ROGER
TITLE OF INVENTION: NOVEL HUMAN PURINOCEPTOR
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 377 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PASTSEQ FOR Windows Version 2.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/023,023 FILING DATE: 12-FEB-1998
COUNTRY: US
ZIP: 94304
COMPUTER READABLE FORM:
                                                            STREET: 3174 FOR CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 610-270-5090
                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LASSIFICATION:
                                                                                                                                                                                                                                                                                                                              45 IYDAK 49
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                                                                                      E: Incyte Pharmaceuticals, Inc. 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                              92.3%;
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Pred. No. 5.3e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                Length 377;
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RESULT 12

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US-08-742-621-1
                                                                                                                   ; ORGANISM: Homo sapiens 
US-09-191-608-22
                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-191-608-22
                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 22 LENGTH: 388
                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 22, APP-
Sequence 22, APP-
No. 624221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                        Matches
                                                                                                                                                                                                   APPLICANT: Touma, Edward B.
APPLICANT: Van Biesen, T.
TITLE OF INVENTION: Nucleic Acids Encoding a Functional
TITLE OF INVENTION: Human Purinoreceptor P2x2 and P2x4 i
TITLE OF INVENTION: And Use Thereof
FILE REFERENCE: 6394.US.11
CURRENT APPLICATION NUMBER: US/09/191,608
CURRENT FILING DATE: 1998-11-13
NUMBER OF SEQ ID NOS: 26
                                                                                                                                                                                                                                                                                                                                     APPLICANT: Lynch, Kevin J.
APPLICANT: Burgard, Edward C.
APPLICANT: Metzger, Randy E.
APPLICANT: Niforatos, Wende
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 388 amino acid
                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: FastSEQ Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: Filed H
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
TOPOLOGY: lir
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
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218 IYDAK 222
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                                                                        Similarity
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                                                        Conservative
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                                                       Score 24; DB Pred. No. 5.5e

1; Mismatches
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Pred. No. 5.5e+02;
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                                                  DB 4;
5.5e+02;
0;
                                                                                  Length 388;
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                                                        Indels
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                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: KAYE, FELLON APPLICANT: OTTERSON, GREGORY A.

APPLICANT: OT INVENTION: ISOLATION AND CHARACTERIZATION OF A

TOTAL CHAPERONE PROTEIN
                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: ISOLATION AND CHARACTER TITLE OF INVENTION: NOVEL CHAPERONE PROTEIN NUMBER OF SEQUENCES: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 471 amino acid
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: OTTERSON, GREGORY A.
TITLE OF INVENTION: ISOLATION AND CHARACTERIZATION OF
TITLE OF INVENTION: NOVEL CHAPERONE PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATION SYSTEM: PC-DOS/MS-DOS
OPERATION SYSTEM: PC-DOS
OPERATION SYSTE
                                                                                                                                                                                                                                                                                             COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/203,905B FILING DATE: February 28, 1994 CLASSIFICATION: 530
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SOFTWARE: PatentIn Release #1.0, Version #1.25
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    Application US/08203905B
    5646249

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                                                                                                                                                                                                                                                                                                                                                    T: 620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR NEWPORT BEACH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4;
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620 NEWPORT CENTER DRIVE, SIXTEENTH FLOOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         619-235-0176
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
NUMBER:
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Pred. No. 6.7e+02;
1; Mismatches 0;
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US-09-177-249-236
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US-09-134-001C-4456
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 4456
LENGTH: 586
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                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                Sequence 236, Appl Patent No. 6229064
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 4456, Application US/09134001C Patent No. 6380370
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                                                                                                                                                                                                                                                                                                                                                                                    Matches
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APPLICANT: Goldberg, Robert B.
APPLICANT: The Regents of the University of California
TITLE OF INVENTION: Development in Plants
FILE REFERENCE: 023070-088120US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/134,001C CURRENT FILING DATE: 1998-08-13 PRIOR APPLICATION NUMBER: US 60/064,964
                                                                                                                                                           APPLICANT: Fischer, I APPLICANT: Ohad, Nir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCC TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                             APPLICANT:
                                                                                                                             APPLICANT:
                                                                                                           APPLICANT:
                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE:
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INFORMATION FOR SEQ
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NAME: KIRKPATRICK, ANITA M.
REGISTRATION NUMBER: 32,617
REFERENCE/DOCKET NUMBER: NII
TELECOMMUNICATION INFORMATION:
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nes '4; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 472 amino acids
                                                                                                                                                                                                                                                                                                                 94 MYDAK 98
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                                                                                                                           Yadegari, Ramin
                                                                                                                                           Kiyosue, Tomohiro
                                                                                          Harada, John
                                                                                                         Margossian, Linda
                                                                                                                                                                                                                              Application US/09177249
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V: 530
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                                                                                                                                                                              Robert L
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    Mismatches

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Pred. No. 8.4e+02;
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Pred. No.
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CURRENT APPLICATION NUMBER: US/09/177,249
CURRENT FILING DATE: 1998-10-22
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 324
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 236
LENGTH: 11
TYPE: PRT
ONCANISM: Arabidopsis sp.
US-09-177-249-236

Query Match
Best Local Similarity 80.0%; Pred. No. 22;
Matches 4; Conservative 1; Mismatches 0; Gaps 0;

OY 1 LYDAK 5
Db 1 LYDSK 5
Db 1 LYDSK 5
Search completed: July 11, 2003, 12:02:10

Search completed: July 11, 2003, 12:02:10
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Minimum DB
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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length: 2000000000
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/cgn2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*
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1014
1043
98
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380
413
430
464
491
567
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9 US-10-156-761-7781

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10 US-09-815-242-12209

9 US-09-738-626-4656

9 US-09-242-056-61

10 US-09-939-980-513

9 US-10-242-056-61

10 US-09-931-207

10 US-09-833-082-2
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US-10-156-761-14800
US-10-036-959B-9
US-09-794-098-2
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US-09-140-719-
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397.148 Million cell updates/sec
                                                      Sequence 7, Appli
Sequence 34, Appli
Sequence 34, Appl
Sequence 4157, Ap
Sequence 4157, Ap
Sequence 9, Appli
Sequence 2, Appli
Sequence 7781, Ap
Sequence 7899, Ap
Sequence 15026, A
Sequence 15026, A
Sequence 15026, A
Sequence 15026, A
Sequence 1503, Appli
Sequence 1503, Appli
Sequence 4556, Ap
              Sequence 10, App
Sequence 27, A
Sequence 17, I
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 Sequence
Sequence
               61, Appi
513, App
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| 88.5              | 88.5              | 88.5             | 88.5               | 88.5              | 88.5              | 88.5               | 88.5                | 88.5                | 88.5              | . 88.5              | 88.5                | 88.5            | 88.5              | 88.5              | 88.5              | 92.3             | 92.3            | 92.3              | 92.3              | 92.3              | 92.3                | 92.3                | 92.3               | 92.3              | 92.3              |
| 634               | 617               | 616              | 590                | 547               | 518               | 498                | 454                 | 448                 | 444               | 442                 | 442                 | 434             | 185               | 11                | 11                | 1084             | 1084            | 967               | 967               | 967               | 645                 | 579                 | 579                | 471               | 447               |
| 10                | 9                 | 9                | 10                 | 10                | 10                | 9                  | 10                  | 10                  | 9                 | 10                  | 10                  | 9               | 9                 | 10                | 9                 | 9                | 9               | 10                | 10                | 9                 | 9                   | 10                  | 10                 | 9                 | 9                 |
| US-09-816-248-13  | us-10-126-279-31  | US-10-126-279-32 | US-09-815-242-5099 | -099              | US-09-816-248-17  | US-10-083-357-1290 | US-09-815-242-10700 | US-09-815-242-13272 | US-10-108-605-187 | US-09-815-242-13702 | US-09-815-242-13237 | US-10-112-039-3 | us-10-234-329-15  | us-09-071-838-236 | US-10-213-512-236 | US-10-173-539-12 | US-10-072-094-7 | US-09-817-538-7   | US-09-817-913-7   | US-09-563-728A-30 | US-10-156-761-12752 | US-09-815-242-12943 | US-09-815-242-5821 | US-10-171-311-212 | US-10-059-585-51  |
| Sequence 13, Appl | Sequence 31, Appl |                  | Sequence 5099, Ap  | Sequence 11, Appl | Sequence 17, Appl | Sequence 1290, Ap  | Sequence 10700, A   | Sequence 13272, A   | Sequence 187, App | Sequence 13702, A   | Sequence 13237, A   | ω, .            | Sequence 15, Appl | Sequence 236, App | Sequence 236, App | 12,              | 7,              | Sequence 7, Appli | Sequence 7, Appli | Sequence 30, Appl | Sequence 12752, A   |                     | Sequence 5821, Ap  | Sequence 212, App | Sequence 51, Appl |

## ALIGNMENTS

Application US/10091442

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Sequence 7, Application us/:
Patent No. US20020164711A1 ·
GENERAL INFORMATION:
                                                                                                                                                                                                                 COUNTRY: United States
ZIT: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-OOS
SOFTWARE: PATCHTIN Release #1.0, Ver
CURRENT APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: CURKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane,
STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIURA, Kenju
ISHIDA, NO. US20020164711A1uhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. US20020164711A1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                      APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995 APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                   APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Alexandria
STATE: Virginia
                     APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
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NAKAZATO, Hiroshi
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JP 6-067339
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SEQUENCE CHARACTERISTICS:
LENGTH: 5 amino acids
                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                  APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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APPLICANT:
                                 PRIOR APPLICATION DATA:
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APPLICANT: YAMAGUCHI, NO. US20010026931A1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                    APPLICATION NUMBER: JP 4 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                    APPLICATION NUMBER: US/0 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. Box CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              'RY: United States 22313-1404
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5; Conserv
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STRANDEDNESS: single
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P.O. Box 1404
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TSUROUOKA, NO. US20010026931A1uo
NAKAZATO, Hiroshi
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KURIHARA, Tatsuya
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Pred. No.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     **REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 5 amino acids
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                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
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                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10,
FILING DATE: 07-Mar-2002
CLASSIFICATION: <Unknown>
REFERENCE/DOCKET NUMBER: 001560-247 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                           ATTORNEY/AGENT INFORMATION: NAME: McGowan, Malcolm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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5; Conserv
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                                   NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,300
                                                                                              APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Virginia COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR OF SEQUENCES: 34
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YAMAICHI, KOZO
YAMAGUCHI, NO. US20020164711Alomi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TSUROUOKA, No. US20020164711Aluo
NAKAZATO, Hiroshi
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Pred. No. 4e+05
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TELEPAX: (703)
TELEPAX: (703)
INFORMATION FOR SEQ ID NO: 3/
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
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Matches 5; Conserv
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                                                                                                     NAME: MCGOWAN, MAICOIM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIDM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. US20010026931A1omi
TITLE OF INVENTION: MECAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Alexandria
                                                                                         TELEPHONE:
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO:
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TSURCUCKA, NO. US20010026931A1uo
NAKAZATO, Hiroshi
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04-MAR-1993
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100.0%; Pred. No.
tive 0; Mismatch
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                                                                                                                                001560-247
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US-09-738-626-4157
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US-09-738-626-4157
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Best Local Similarity
Matches 5; Conserv
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Best Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                 Sequence 14800, Application US/10156761 Publication No. US20030119018A1
APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: JP 00/159162 PRIOR FILING DATE: 2000-04-07 PRIOR APPLICATION NUMBER: JP 00/280988 PRIOR FILING DATE: 2000-08-03
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                                                                                                                                 APPLICANT: OMURA, SATOSHI
APPLICANT: IKEDA, HARUO
APPLICANT: ISHIKAWA, JUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
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TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                        340 LYDAK 344
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IKEDA, MASATO
OZAKI, AKIO
                                                                                                                   ISHIKAWA, JUN
HORIKAWA, HIROSHI
                                                                                                   SHIBA, TADAYOSHI
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YOKOI, HARUHIKO
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Pred. No.
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                                                           ; ORGANISM: Salmonella typhi US-09-794-098-2
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US-09-794-098-2
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; TYPE: PAT
; ORGANISM: Hevea brasiliensis
US-10-036-959B-9
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                                                                                             SOFTWARE: P.
SEQ ID NO 2
LENGTH: 491
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/036,959B
CURRENT FILING DATE: 2002-05-10
PRIOR APPLICATION NUMBER: 60/307,637
PRIOR FILING DATE: 2001-07-25
NUMBER OF SEQ ID NOS: 16
SOFTWARE: Microsoft Office 97
SEQ ID NO 9
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                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/09794098
Patent No. US20020012668A1
GENERAL INFORMATION:
APPLICANT: Universiti Sains Malay
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LENGTH: 430
                   Query Match
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 Best Local Similarity
                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/794,098
CURRENT FILING DATE: 2001-02-28
PRIOR APPLICATION NUMBER: PI 2000 0765
PRIOR FILING DATE: 2000-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: E.I. du Pont de Nemours & Company
APPLICANT: Hallahan, David L.
APPLICANT: Keiper-Hrynko, Natalie
TITLE OF INVENTION: Genes Involved in the Biosynthesis of Isopentenyl Diphosphate in
TITLE OF INVENTION: brasiliensis Latex
                                                                                                                                                                                                                                                                      APPLICANT: Universiti Sains Malaysia TITLE OF INVENTION: DNA SEQUENCE ENCODING THE SPECIFIC AND ANTIGENIC OUTER MEMBRANE TITLE OF INVENTION: OF SALMONELLA TYPHI FILE REFERENCE: 4463-005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
                                                                                                                                                                           NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: CL-1792
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100.0%;
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Score 26;
Pred. No.
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Pred. No. 3.3e+02;
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 DB 10;
3.5e+02;
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                   Length 491;
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APPLICANT: ISHIKAWA, JUN
APPLICANT: HORIKAWA, HIROSHI
APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SKAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: JP 2001-204089
PRIOR FILING DATE: 2001-05-30
PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
SEQ ID NO 7899
LENGTH: 707
                                                                                ; ORGANISM: Streptomyces avermitilis US-10-156-761-7899
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US-10-156-761-7899
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PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
SEQ ID NO 7781
LENGTH: 567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 7899, Application US/10156761 Publication No. US20030119018A1
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Query Match
Best Local Similarity
Matches 5; Conserv
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Best Local Similarity
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APPLICANT: HORIKAWA, HIROSHI
APPLICANT: SHIBA. TAPPYYOO
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CURRENT FILING DATE: 2002-05-29
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APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: OMURA, SATOSHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: JP 2001-204089 PRIOR FILING DATE: 2001-05-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447 LYDAK 451
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100.0%; Score 26; DB 9; ilarity 100.0%; Pred. No. 5.1e+02; Conservative 0; Mismatches 0;
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                                         DB 9;
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                                         Length 707;
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470 LYDAK 474

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APPLICATION UNMBER: 60/23,625
PRIOR APPLICATION UNMBER: 60/257,931
PRIOR APPLICATION UNMBER: 60/257,931
PRIOR APPLICATION NUMBER: 60/259,308
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US-09-815-242-12209
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APPLICANT: HORIKAWA, HIROSHI
APPLICANT: SAIBA, TADAYOSHI
APPLICANT: SAIBA, TADAYOSHI
APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
CURRENT FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2001-05-30
PRIOR APPLICATION NUMBER: JP 2001-204089
PRIOR APPLICATION NUMBER: JP 2001-204089
PRIOR APPLICATION NUMBER: JP 2001-204089
PRIOR FILING DATE: 2001-05-30
PRIOR FILING DATE: 2001-08-02
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APPLICANT: IKEDA, HARUO
APPLICANT: ISHIKAWA, JUN
APPLICANT: HORIKAWA, HIROS
APPLICANT: SHIBA, TADAYOSI
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Patent No. US20020061569A1
GENERAL INFORMATION:
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LENGTH: 712
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Best Local :
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109 5; Conservation
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Xu, H. Howard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wall, Daniel
Trawick, John D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carr, Grant J.
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Pred. No.
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NUMBER OF SEQ ID NOS: 7059
SOFTWARE: Patentin ver. 3.0
SEQ ID NO 4656
LENGTH: 1014
TYPE: PRT
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TYPE: PRT
; ORGANISM: Staphylococcus aureus
US-09-815-242-12209
                                                                                                                       US-10-242-056-61
Sequence 61, Application US/10242056
Publication No. US20030113323A1
GENERAL INFORMATION:
APPLICANT: Ensign, Jerald C
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US-09-738-626-4656
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APPLICANT: OZAKI, AKIO

TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES

FILE REFERENCE: 249-125

CURRENT APPLICATION NUMBER: US/09/738,626

CURRENT FILING DATE: 2000-12-18

PRIOR APPLICATION NUMBER: JP 99/377484

PRIOR APPLICATION NUMBER: JP 99/377484

PRIOR FILING DATE: 1999-12-16

PRIOR FILING DATE: 1999-13-16

PRIOR FILING DATE: 2000-04-07

PRIOR FILING DATE: 2000-04-07
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Best Local Similarity
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Best Local Similarity
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APPLICANT:
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TATEISHI, NAOKO
SENOH, AKIHIRO
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OCHIAI, KEIKO
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Ensign, Jerald C
Bowen, David J
Petcall, James
Fatig, Raymond
Schoonover, Sue
ffrench-Constant, Richard
Orr, Gregory L
Merlo, Donald J
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Pred. No. 5.3e+02;
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Roberts, Jean

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US-09-939-980-513
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; MOLECULE TYPE:
US-10-242-056-61
                                                                            Sequence 513, Application | Patent No. US20020082234A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                    Matches
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Best Local Similarity
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PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 60/007, 255
FILING DATE: 06-NOV-1995
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/608,423
EILING DATE: 28-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 61:
                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 1043 amino aci
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APPLICATION NUMBER: US 08/705,484
FILING DATE: 28-AUG-1996
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PRIOR APPLICATION NUMBER: US 08/743,699
FILING DATE: 06-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 50
TELECOMMUNICATION INFORMATION:
TELEPHONE: 317-337-4846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/395,497
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 0 FILING DATE: 18-MAY-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 9330 Zionsv
CITY: Indianapolis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/10/242,056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                             APPLICANT:
                                                                                                                                                                                       62 LYDAK 66
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                                                                                                                                                                                                                     1 LYDAK 5
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                                                                                                                                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Borucki, Andrea
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                                                                                                         Application US/09939980
                                                                                                                                                                                                                                                                                                                                                                           1043 amino acids
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9330 Zionsville Road
                                                                                                                                                                                                                                                                                                                                                                                                                           317-337-4847
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                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                               linear
            Hodgson,
Knowles,
                                                           Black, Michael
                                                                                                                                                                                                                                                                                                                             protein
Lonetto,
                                          Burnham,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Photorhabdus
                                                                                                                                                                                                                                                                 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      88
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Michael
                                               Martin
                David
                              John
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                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                 Score 26; DB 9;
Pred. No. 7.5e+02;
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                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                Length 1043;
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MOLECULE TYPE: Protein

SEQUENCE DESCRIPTION: SEQ ID NO: 513:
US-09-939-980-513
Search completed: July 11, 2003, 12:37:34 Job time: 2.4657 secs
                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                 TELEX: «Unknown»
INFORMATION FOR SEQ ID NO: 513:
SEQUENCE CHARACTERISTICS:
LENGTH: 88 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/939,980
FILING DATE: 27-Aug-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKline Beecham Corporation
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/936,165
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: No. US20020082234Alel Prokaryotic Polynucleotides, Polypeptides and Their Uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                         48 MYDAK 52
                                                                                                             1 LYDAK 5
                                                                                                                                                4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 610-270-44
TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Gimmi, Edward R REGISTRATION NUMBER: :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: USA
ZIP: 19406-0939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: King of Prussia
                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nicholas, Richard
Pratt, Julie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rosenberg, Martin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ward, Judith
                                                                                                                                                                                                                                                                                                                                                                                                                               610-270-4478
                                                                                                                                                                   92.3%;
80.0%;
                                                                                                                                                  <u>|</u>
                                                                                                                                                                   Score 24; DB 10;
Pred. No. 1.8e+02;
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                                                                                                                                                  Mismatches
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                                                                                                                                                                                    Length 88
                                                                                                                                                  Indels
                                                                                                                                                  0;
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Fri Jul 11 15:11:22 2003

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 11, 2003, 11:45:06; Search time 1.00832 Seconds (without alignments) . 476.708 Million cell updates/sec

US-10-091-442-7 26 1 LYDAK 5

Title: Perfect score: Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched:

Total number of hits satisfying chosen parameters:

283224

283224 seqs, 96134422 residues

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR\_73:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result

|          |       | ø     |        |     | 00.000 |                    |
|----------|-------|-------|--------|-----|--------|--------------------|
| NO.      | Score | Query | Length | 80  | ID     | Description        |
| ם        | 26    | 0     | 117    | 2   | S41811 | Iq kappa chain V r |
| 2        | 26    | 100.0 | 178    | ພ   | 7034   | nserved hypot      |
| w        | 26    |       | 197    | N   | в71106 | cal prot           |
| 4        | 26    |       | 199    | N   | ~      | _                  |
| · US     | 26    | •     | 253    | N   | AD1797 | pro                |
| σ        | 26    |       | 253    | N   | AF1423 |                    |
| 7        | 26    | 100.0 | 259    | N   | G81427 |                    |
| · œ      | 26    | 100.0 | 277    | N   | S73522 |                    |
|          | 26    | 100.0 | 281    | N   | T50351 |                    |
| : 6      | 26    |       | 301    | N   | G97187 | UDP-glucose 4-epim |
| <u>+</u> | ) K   |       | 304    | N   | C90453 |                    |
| 1 6      | 2 6   | 100.  | 3/1    | ) V | T13194 | Cal                |
| 14       | 26    |       | 356    | N   | E75266 | GGDEF family prote |
| 15       | 26    |       | 401    | N   | I50679 | protein            |
| 16       | 26    | 8     | 408    | N   | S57148 | thetical pr        |
| 17       | 26    |       | 421    | N   | н89916 | n                  |
| 18       | 26    |       | 439    | N   | E98139 | n                  |
| 19       | 26    | 100.0 | 439    | N   | AF3148 |                    |
| 20       | 26    |       | 443    | 'n  | A27793 | ~                  |
| 21       | 200   |       | 450    | N   | 150631 | CP49ins protein -  |
| 2 2      | 26    | 100.0 | 474    | N   | T09688 | hydroxymethylgluta |
| 2 6      | 200   |       | 475    | N   | T27811 | hypothetical prote |
| 24       | 1 6   | 8     | 491    | N   | S70190 |                    |
| 2 2      | 200   | 00.   | 491    | N   | AB0890 | ä                  |
| 200      | 200   | 100.0 | 512    | N   | B82433 | glycero            |
| 27       | 26    | 8     | 526    | ш   | G71081 |                    |
| 200      | 26    |       | 543    | N   | T50905 | prophill           |
| 44       | 20    | T00.0 | 549    | 2   | A90253 | hypothetical prote |
|          |       |       |        |     |        |                    |

Nature 392, 353-358, 1998
A;Title: The complete genome of the hyperthermophilic bacterium Aquifex aeolicus.
A;Reference number: A70300; MUID:98196666; PMID:9537320
A;Accession: H70345
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-178 <AQF>
A;Cross-references: GB.AE000693; NID:g2983148; PIDN:AAC06761.1; PID:g2983159; GB:AE00
A;Experimental source: strain VF5
C;GenetLcs:
A;Genet ag\_507

Query Match Best Local Similarity

100.0%;

Score Pred.

No. 56; 2:

Length 178;

conserved hypothetical protein aq\_507 - Aquifex aeolicus C;Species: Aquifex aeolicus C;Species: Aquifex aeolicus C;Species: Aquifex aeolicus C;Date: 08-May-1998 #sequence\_revision 08-May-1998 #text\_change 05-Nov-1999 C;Accession: H70345 R;Deckert, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.; Lenox, A.L.; Graham, D.E.; V

H70345

|                   |                    | 26     |                    |                    |                    |                    | Ψ.                 | -                  | -                  | -                 | -                  |                    |                    | 0 26               |
|-------------------|--------------------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| 100.0             | 100.0              | 100.0  | 100.0              | 100.0              | 100.0              | 100.0              | 100.0              | 100.0              | 100.0              | 100.0             | 100.0              | 100.0              | 100.0              | 100.0              |
| 815               | 768                | 734    | 730                | 662                | 641                | 641                | 637                | 633                | 630                | 605               | 577                | 574                | 572                | 552                |
| 2                 | S K                | b      | 2                  | N                  | N                  | ب                  | N                  | N                  | _                  | N                 | N                  | N                  | N                  | Ν                  |
| E70021            | 889770             | AF2001 | S64998             | T46228             | E95320             | ZZZRNQ             | S36523             | н95932             | W1WL35             | G95853            | D83473             | G69769             | S52694             | в90476             |
| 3-hydroxyacyl-coa | hypothetical prote |        | hypothetical prote | hypothetical prote | adenylyl-sulfate k | adenylyl-sulfate k | El protein - human | probable adenylyl- | El protein - human | probable pyruvate | isocitrate dehydro | pyruvate oxidase h | asparagine synthas | hypothetical prote |

## ALIGNMENTS

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Partition protein, Pa
C; Species: Listeria i
C; Date: 27-Nov-2001 #
C; Accession: AD1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             hypothetical protein PH0619 - Py
C; Species: Pyrococcus horikoshii
C;Date: 14-Aug-1998 #sequence_re
C;Accession: B71106
                                                            RESULT 5
AD1797
                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein T12G3.5 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #t.C;Accession: T24871 R;Sims, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Title: Complete sequence and gene organization of the genome of a hyper-thermophilic A;Reference number: A71000; MUID:98344137; PMID:9679194
A;Accession: B71106
A;Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R; Kawarabayasi, Y.; Sawada, M.; Ohfuku, Y.; Funahashi, NA Res. 5, 55-76, 1998
                                                                                                                           망
                                                                                                                                                    8
                                                                                                                                                                                                                                               A;Map position: 4
A;Introns: 45/1; 166/3
C;Superfamily: Caenorh
                                                                                                                                                                                                                                                                                                          A; Experimental source: C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: Z19945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ş
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C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GB:AP000003; NID:g3236130; PIDN:BAA29708.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-197 <KAW>
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A; Residues: 1-199 <WIL>
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                                                                                                                                                                                                                                                                                            A; Gene: CESP:T12G3.5
                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:Z68752; PIDN:CAA92984.1; GSPDB:GN00022; CESP:T12G3
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Best Local S
Matches 5
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                                                                                                                           134 LYDAK 138
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                                                                                                                                                                                                                                               Caenorhabditis elegans hypothetical protein T12G3.
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                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                            ParA homolog [imported] - Listeria innocua (strain Clip11262)
                                   innocua
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #sequence_revision 15-Oct-1999 #text_change
                 #sequence_revision 27-Nov-2001 #text_change 17-May-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #sequence_revision 14-Aug-1998 #text_change 05-Nov-1999
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                                                                                                                                                                                                                                                                                                                              clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                  100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pyrococcus horikoshii
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                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
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                                                                                                                                                                                    Score 26; DE
Pred. No. 63;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 26;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                 January 1996
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63;
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                                                                                                                                                                                                                 Length 199;
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                                                                                                                                                                                      0
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C; Superfamily:
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C; Superfamily:
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                                                                                                                                                                                      RESULT 7
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                                                                                                                                                                                                                                                                                               Matches
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                                                                                                                                                                                                                                    LYDAK 235
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D.; Jones, L.M.; Karst, U.
Science 294, 849-852, 2001
A; Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Maduenc ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, A; Title: Comparative genomics of Listeria species.
A; Reference number: AB1077; MUID:21537279; PMID:11679669
A; Accession: AD1797 Local Similarity P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloec uez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, 1 LYDAK 5 regulatory protein spo0J Conservative 100.0%; Duchaud, <u>,,</u> Score 26; Pred. No. Mismatches 2; 0; G.; Madueno, E.;
uez-Boland, J.A.; Indels 0 Maitournam, Voss, H.; W 0 m, A.; Wehla

C;Species: Listeria monocytogenes
C;Date: 27-Nov-2001 #sequence\_revision 27-Nov-2001 #text\_change ParA homolog parA [imported] - Listeria monocytogenes (strain 17-May-2002 Berche, P.; tian, K.D.; EGD-

R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berch.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, D.; Jones, L.M.; Karst, U.
Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maiok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Vos A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AF1423 Maitournam, Voss, H.; W Wehla

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A;Cross-references: GB:NC\_003210; PIDN:CAD01004.1; PID:g16412291; GSPDB:GN00177 A;Experimental source: strain EGD-e A;Status: preliminary A;Molecule type: DNA A;Residues: 1-253 <GLA>

regulatory protein

spolJ

Similarity 5; Conserv Conservative 100.0%; 0; Score 26; Pred. No. Mismatches 82; 2 0; Length 253; Indels <u>,</u> Gaps

0,

periplasmic protein Cj0111 [imported] - Campylobacter jejuni (strain NCTC 11168) C;Species: Campylobacter jejuni C;Species: Campylobacter jejuni C;pate: 31-Mar-2000 #sequence\_revision 31-Mar-2000 #text\_change 03-Jun-2002 C;Pate: 31-Mar-2000 #sequence\_revision 31-Mar-2000 #text\_change 03-Jun-2002 C;Accession: G81427 R;Parkhill, J.; Wren, B.W.; Mungall, K.; Ketley, J.M.; Churcher, C.; Basham, D.; C.W.; Quail, M.; Rajandream, M.A.; Rutherford, K.M.; VanVliet, A.; Whitehead, S. Nature 403, 665-668, 2000 D.; Chil 1, S.; Bar

A, Title: The genome sequence of the food-borne pathogen Campylobacter A; Reference number: A81250; MUID:20150912; PMID:10688204 A; Accession: G81427 jejuni reveals

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probable methyltransferase [imported] - fission yeast (Schizosaccharomyces pombe) C;Species: Schizosaccharomyces pombe C;Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change 09-Jun-2000 C;Accession: T50351 R;Seeger, K.; Harris, D.; Lyne, M.; Rajandream, M.A.; Barrell, B.G. submitted to the EMBL Data Library, February 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 probable lipoprotein E09_orf277 - Mycoplasma pneumoniae (strain ATCC 29342)
N:Alternate names: hypothetical protein E09_orf277
C:Species: Mycoplasma pneumoniae
A:Varlety: ATCC 29342
C:Date: 27-Feb-1997 #sequence_revision 25-Apr-1997 #text_change 07-Dec-1999
C:Accession: S73522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-259 <PAR>
A;Cross-references: GB:AL139074; GB:AL111168; NID:g6967505; PIDN:CAB72595.1; PID:g696760
A;Experimental source: serotype O2, strain NCTC 11168
C;Genetics:
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A:Title: Complete sequence analysis of the genome of the bacterium Mycoplasma A;Reference number: S73327; MUID:97105885; PMID:8948633
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A; Residues: 1-281 <SEE>
A; Residues: 1-281 <SEE>
A; Cross-references: EMBL: AL157918; PIDN: CAB76043.1;
A; Experimental source: strain 972h(-); cosmid c21C3
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T50351
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A; Residues: 1-277 <HIM>
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1 LYDAK 5
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Pred. No. 84;
0; Mismatches
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Pred. No.
                                                                    Score 26;
Pred. No.
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91;
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                                                                                       <u>ب</u>
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                                                                                     Length 281;
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R:Pauley, A.; Gattung, S. submitted to the EMBL Data Library, May 1997 A;Description: The sequence of C. elegans cosmid F55A12
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T15194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;She, Q.; Singh, R.K.; Confalonieri, F.; Zivanovic, Y.; Allard, G.; Away Jong, I.; Jeffries, A.C.; Kozera, C.J.; Medina, N.; Peng, X.; Thi-Ngoc, arrett, R.A.; Ragan, M.A.; Sensen, C.W.; Van der Oost, J. submitted to GenBank, April 2001
A;Description: Sulfolobus Solfataricus complete genome.
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C90453
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C; Superfamily:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Date: 24-May-2001 #sequence_revision 24-May-2001 #text_change 24-May-2001
C;Accession: C90453
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Title: Genome Sequence and Comparative Analysis of the A; Reference number: A96900; MUID:21359325; PMID:21359325 A; Accession: G97187
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C;Accession: G97187
                                                                                                     hypothetical protein F55Al2.2 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #te
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A; Reference number:
                                                                               C; Accession: T15194
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Status: preliminary
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A;Accession: C90453
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A; Residues: 1-301 <KUR>
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Best Local
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| Species: Sulfolobus solfataricus
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5; Conserv
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5; Conserv
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Pred. No.
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Pred. No.
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No. 1e+02;
Mismatches
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                                                                                                         20-Sep-1999 #text_change
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goc, H.P.; Redder
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A;Reference number: A8295
A;Accession: B83298
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-341 <STO>
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C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
C;Accession: B83298
R;Stover, C.K.; Pham, X.O.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hicladhan, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-326 <PAU>
A;Cross-references: EMBL:AF003130; NID:g2088663; PID:g2088670; PIDN:AAB54128.1; GSPDB:GN
A;Experimental source: Strain Bristol N2; clone F55A12
C;Genetics:
A;Gene: CESP:F55A12.2
A;Map position: 1
A;Introns: 39/2; 121/1; 165/3; 241/1
A;Superfamily: Caenorhabditis elegans hypothetical protein F55A12.2
                                                                                                                                                                                                                            A;Title: Genome sequence of the radioresistant bacterium Deinococcus radiodurans R1 A;Reference number: A75250; MUID:20036896; PMID:10567266 A;Accession: E75266
                                                                                                                                                                                                                                                                                                                        R;White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback, S.; Smith, H.O.; Venter, J.C.; Fraser, C.M.
                                                 A; Map
                                                                                                                 A; Cross-references: GB:AE002079; A; Experimental source: strain Rl
                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-356 <WHI>
                                                                                                                                                                                                         A; Status: preliminary
                                                                                                                                                                                                                                                                                                   , M.; Shen, M.; Vamathevan, J.J.; Lam, S.; Smith, H.O.; Venter, J.C.; Fraser, Science 286, 1571-1577, 1999
                                                                                                                                                                                                                                                                                                                                                                                             C; Accession: E75266
                                                                                                                                                                                                                                                                                                                                                                                                                     C; Date: 03-Dec-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Species: Deinococcus radiodurans
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C;Species: Pseudomonas aeruginosa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:AE004705; GB:AE004091; NID:g9948851; PIDN:AAG06159.1; GSPDB:GN00:
A;Experimental source: strain PAO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: Complete genome
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A82950; MUID:20437337; PMID:10984043
                                                                                                                                                                                                                                                                                                                                                                                                             #sequence_revision 03-Dec-1999 #text_change 17-Mar-2000
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                                                                                                                                       GB:AE000513; NID:g6460315; PIDN:AAF12040.1; PID:g64603
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T.; Zalewski,
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A.; Larbig,
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K.; Lim,
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C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
C;Accession: I50679; S58355
R;Sawada, K.; Agata, S.K.; Eguchi, G.; Quinlan, R.A.; Maisel, H.
Curr. Eye Res. 14, 545-553, 1995
A;Title: The predicted structure of chick lens CP49 and a variant therof, CFA;Reference number: I50631; MUID:96066015; PMID:7587300
                                                                                  В
                                                                                                                     Qy
                                                                                                                                                                                                                                               A;Gene: CP49
C;Superfamily:
                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: EMBL:X84806; NID:g953184; PIDN:CAA59271.1; PID:g4377562 R;Agata, S.K.; Eguchi, G.; Quinlan, R.A.; Maisel, H. submitted to the EMBL Data Library, February 1995 A;Description: The predicted structure of chick lens CP49 and a variant therof, CP491
Search completed: July 11, Job time: 3.10832 secs
                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 1-217,'A',219-379,'H',381-401 <AGA>
A;Cross-references: EMBL:X84806; NID:g953184; PIDN:CAA59271.1; PID:g1334742
                                                                                                                                                                                                                                                                                                                                                                                                 A; Reference number: S58351
A; Accession: S58355
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A; Residues: 1-401 <SAW>
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Y995_YEAST
Y0CR_METVA
TOLC_SALEN
BCHB_RHOGE
ASN1_YEAST
VEL_HPV35
NODO_RHINE
NCA1_CHICK
P152_YEAST
Y418_METJA
X0HB_ECOLI
PNAD_MOUSE
PNAD_PIG
DCHS_LAFG3
RLAG_BLAFG3
RLAG_BLAFG3
RLAG_BLAFG4
RCAS_BVIN
P2X4_HUMAN
VG68_HSVI1
DHEA_PSYT1
STCH_HUMAN
VG68_HSVI1
DHEA_BCIRU
YQHH_BACSU
HDA4_HUMAN
RPOB_TREPA
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            P47160 saccharomyc
P07956 methanococc
Q54001 salmonella
Q9jpa3 rhodocyclus
P49089 saccharomyc
P27220 human papil
P13442 r nodq bifu
P13590 gallus gall
P39685 saccharomyc
P30685 saccharomyc
P30685 saccharococc
Q8x6c5 escherichia
Q46800 escherichia
Q46800 escherichia
Q46800 escherichia
Q46801 lmus musculu
Q28955 sus scrofa
P00862 lactobacill
Q94660 plasmodium
Q9zdm1 rickettsia
Q9zdm1 rickettsia
Q9zill rickettsia
Q9zill postaurus
Q9zill postaurus
Q9zill postaurus
Q9571 homo sapien
Q00128 ictalurid h
Q9s169 psychrobact
P48723 homo sapien
Q9wxb5 acidiphiliu
P54524 homo sapien
Q8x654 homo sapien
Q8x654 homo sapien
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075635 homo sapien
P47160 saccharomyc
P07956 methanococc
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pseudomonas
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RESULT 2 SPB7\_HUMAN

| dd<br>VQ                    |                                                | DR<br>DR<br>DR<br>DR<br>ET<br>FT<br>SQ<br>SQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 888888888                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CCCRA                           | RRRRRRR                                                                                  |                                                                                                                                       | Y4<br>ID    |                                                                                                      |                                                          |
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|                             | Query Matc<br>Best Local<br>Matches            | EMBL; AB000020; AAB95844.1; Interpro; IPR001595; Lipoprotein_3; Propom; PP00938; Lipoprotein_3; ProDom; PD003276; Lipoprotein_1, PROSITE; PS00013; PROKAR_LIFOR Hypothetical protein; Lipoprotein complete proteome. 25 GINAL 1 25 CHAIN 26 27 LIPID 27 LIPID 26 27 LIPID 27 LIPID 27 LIPID 26 27 LIPID 27 LIPI | This between the use modi enti                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pne<br>Nuc.                     |                                                                                          |                                                                                                                                       | SUI<br>4 A  | 444440000                                                                                            | 35<br>35<br>37<br>36                                     |
| 1 LY<br>1 1<br>85 LY        |                                                | AE00003 Pro; IPF Pro; | SWISS-PROTE the Sw<br>en the Sw<br>uropean Bib<br>by non-priced and the<br>ied and the<br>ies required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 | SEQUENCE FROM N<br>STRAIN-ATCC 293<br>MEDLINE-9710588<br>Himmelreich R.,<br>Herrmann R.; | 01-NOV-1997 (Re 00-NOV-1997 (Re 16-OCT-2001 (Re Hypothetical li MPN046 OR MP196 Mycoplasma pneu Mycoplasma pneu NGBI_TaxID=2104 [1]   | MYCPN<br>1; | 2222222                                                                                              | 2222                                                     |
| LYDAK 5<br>    <br>LYDAK 89 | n<br>Similarity<br>5; Conser                   | 00020; AA<br>1PR00159<br>0938; Lip<br>0938; Lip<br>p003276;<br>PS00013;<br>cal prote<br>proteome.<br>1<br>26<br>277 AA;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | s SWISS-PROT ent<br>ween the Swiss<br>European Bioinf<br>by non-profit<br>lified and this s<br>ities requires a<br>send an email to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ;<br>s Re<br>LAR<br>LAR<br>al). | M N 293, 293, 588; R.,                                                                   | 1997 (Rel. 35,<br>1997 (Rel. 35,<br>2001 (Rel. 40,<br>stical lipoprot<br>OR MP196.<br>ssma pneumoniae<br>a; Firmicutes;<br>uxID=2104; | ST          | 888                                                                                                  | 0 0 0 0 0                                                |
|                             | 100<br>y 100<br>rvative                        | O0020; AAB95844.1; - IPRO01595; Lipoprotein_3. 0938; Lipoprotein_3; 1. D003276; Lipoprotein_3; 1. PRO0013; PROKAR_LIPOPROTEIN; PROUDIA; PROFERIN; MEDITE POTENTIA 26 27 HYPOTHET 26 26 N-ACYL D 277 AA; 31097 MW; A17DC4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SWISS-PROT entry is copyright. It is neen the Swiss Institute of Bioinformatics Institute. The European Bioinformatics Institute. The properties as long the and this statement is not remove ties requires a license agreement (Seend an email to license@isb-sib.ch).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | H 0                             | / M129<br>PubMed<br>lbert                                                                | 35,<br>40,<br>rote<br>iae.<br>es;                                                                                                     | STANDARD    | 2995<br>2995<br>308<br>319<br>325<br>350                                                             | 1409<br>26<br>108<br>185                                 |
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|                             | ; DB<br>. 39;<br>ches                          | N; 1.<br>Membrane;<br>IAL.<br>ETICAL LI<br>DIGLYCER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 | , Pirkl                                                                                  | e update)<br>.ion update)<br>.olog 1 precursor<br>.mycoplasmataceae;                                                                  | 77 AA.      |                                                                                                      |                                                          |
|                             | 1; t                                           | Sign<br>Sign<br>POPRO<br>CIDE (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | matics and There are no g as its coled Usage lee http://www                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ibra<br>FAM                     | d E.,                                                                                    | te)<br>date)<br>precursor<br>asmataceae                                                                                               |             |                                                                                                      |                                                          |
|                             | Length 2<br>Indels                             | al;<br>TEIN<br>POTEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1 1 2 2 2 2 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | LY.                             | Li B.                                                                                    | ~                                                                                                                                     |             |                                                                                                      |                                                          |
|                             | 277;                                           | MG440<br>TTIAL).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ough a colla                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | a 11p                           | rium t                                                                                   | opl or                                                                                                                                |             | Q58519<br>Q58189<br>Q58189<br>P75794<br>Q00119<br>P04194<br>O57809<br>O67189                         | P44596<br>P81073<br>P01636<br>P54570                     |
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RESULT 3
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MEDLINE-98376492; PubMed-9710452;
Miyata T., Nangaku M., Suzuki D.,
Okubo K., Kurokawa K.;
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075635;
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SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN;
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                                                                                                                                                                                                                                                                                                                                           HSSP; P05619; 1HLE.
Genew; HGNC:13902; SERPINB7.
                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                              PROSITE; PS00284; SERPIN; 1.
Serpin; Serine protease inhibitor.
ACT_SITE 347 348 REACT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "A mesangium-predominant gene, megsin, 1gA nephropathy.";
J. Clin. Invest. 102:828-836(1998).
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Mammalia; Eutheria;
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15-JUN-2002 (Rel. 41,
15-JUN-2002 (Rel. 41,
Megsin (TP55) (Serpin
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                                                                                                                                                                                                                                                                                                                     interPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               its action as a serpin.
SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
TISSUE SPECIFICITY: Predominantly expressed in mes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE SPECIFICITY: Predominantly expressed in mesangial cells SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: Might function as an inhibitor oproteases. Might influence the maturation
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                                                                                                                                                                                                                                                                                                                        "Structure and expression of the genes, mcrBDCGA, which enco subunits of component C of methyl coenzyme M reductase in Methanococcus vannielii.";

Proc. Natl. Acad. Sci. U.S. A. 84:3992-3996(1987).

-!- FUNCTION: Reduction of methyl-coenzyme M (2-(methylthio) ethanesulfonic acid) with 7-mercaptoheptanoylthreonine p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (Rel. 34, Last and Hypothetical 45.1 kba protein YJR125C OR J2048.
Saccharomyces cerevisiae (Bake Eukaryota; Fungi; Ascomycota;
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Interpro; IPR001026; ENTH.
Pfam; PF01417; ENTH; 1.
SMART; SM00273; ENTH; 1.
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Cram D.S., Sherf B.A.,
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Methanococcaceae; Metha
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NCBI_TaxID=4932;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=2187;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hypothetical protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; Z49625; CAA89656.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                         s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                         CATALYTIC ACTIVITY: CH(3)-S-COM + H-S-HTP - COFACTOR: THE ENZYME COMPLEX BINDS TIGHTLY 1 TO TWO MOLECULES OF COENZYME F430. F430 IS 1
                                                                                                                                                PATHWAY: Methanogenesis; last: SUBUNIT: HEXAMER OF TWO ALPHA,
                                                                                                                                                                                                    PORPHINOID.
                                                                                                                                                                                                                                                                                                        to methane and an heterodisulfide.
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5; Conserv
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zyme M reductase beta subunit (EC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Methanococcus
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to the EMBL/GenBank/DDBJ databases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Libby R.T., Mattaliano R.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Methanococci;
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                                                                                                                                                                                                                                                                                                                  Virulence in BALB/c mice.";
Mol. Microbiol. 17:701-712(1995).
HOLL MICROBIOL. REQUIRED FOR PROPER EXPRESSION OF OUTER MEMBRANE PROTEIN GENES SUCH AS OMPF, NMPC, PROTEIN 2, HEMOLYSIN, COLICIN V, OR COLICIN B1. MAY BE SPECIALIZED FOR SIGNAL SEQUENCE INDEPENDENT, EXTRACELLULAR SECRETION IN GRAM-NEGATIVE BACTERIA.

1. SUBCELLULAR LOCATION: OUTER MEMBRANE.
SIMILARITY: BELONGS TO THE PRTF FAMILY OF SECRETION PROTEINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOLC_SALEN STANDARD; PRT; 491 AA (54001; 01-NOV-1997 (Rel. 35, Last sequence update) 01-NOV-1997 (Rel. 35, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR;
                                                                                                                                                                           EMBL; U25178; AAC43973.1; HSSP; P02930; 1EK9.
                                                                                                                                                                                                              use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                  SEQUENCE
                                                                                                                                       Transport;
                                                                                                                                                  InterPro; IPR003423; OEP. Pfam; PF02321; OEP; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                    Stone B.J., Miller V.L.; "Salmonella enteritidis has a homologue of tolo
                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=96111490; PubMed=8801424;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Salmonella.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Salmonella enteritidis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Outer membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Methanogenesis; Oxidoreductase.
SEQUENCE 443 AA; 46954 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR003179; MCR_beta.
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400 LYDAK 404
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5; Conserv
                      1 LYDAK 5
                                                                                                 Outer membrane; Signal.

1 24 BY SIMILARITY.

25 491 OUTER MEMBRANE PROTEIN TOLC.
25 491 SBF0FB64C0257FA4 CRC64;
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"Horizontal transfer of the photosynthesis gene cluster and operation of the protocolors of the photosynthesis gene cluster and operation is considered.";

J. Mol. Evol. 52:333-341(2001).

-i- FUNCTION: Uses Mg-ATP and reduced ferredoxin to reduce ring I protocolorophyllide (Pchilde) to form chlorophyllide a (Chlic (By similarity). This reaction is light-independent.

-i- PATHWAY: Light-independent bacteriochlorophyll biosynthesis.

-i- SUBUNIT: Protochlorophyllide reductase is thought to be composed three subunits; both, both and boths. Could form a heterotetramer of two boths and two boths subunits.

-i- SIMILARITY: BELONGS TO THE CHLB / BCHB / BCHZ FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-JUN-2002 (Rel. 41, Last annotation update)
Light-Independent protochlorophyllide reductase subunit (EC 1.18.-.-) (LI-POR subunit B) (DPOR subunit B).
                                                                                 01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Asparagine synthetase [glutamine-hydrolyzing]
(Glutamine-dependent asparagine synthetase 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                   Oxidoreductase; PhoseQUENCE 543 AA;
                         Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                  ASN1_YEAST
P49089;
                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00148; oxidored_nitro; 1 TIGRFAMs; TIGR01278; DPOR_BchB;
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MEDLINE=21240759; PubMed=11343129;
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           NCBI_TaxID-4932;
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534 LYDAK 538
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ilarity 100.0%;
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Photosynthesis; Bacteriochlorophyll biosynthesis
aa; 58697 MW; 76ADF68BA2C1D067 CRC64;
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RA BUSSEY H., Storms R.K., Ahmed A., Albermann K., Allen E., Ansorge W.,

RA Bussey H., Storms R.K., Ahmed A., Albermann K., Benes V.,

RA Araujo R., Aparicio A., Barrell B.G., Badcock K., Benes V.,

RA Chung E., Churcher C.M., Coster F., Davis K., Davis R.W.,

RA Chung E., Churcher C.M., Coster F., Davis K., Diesterhoeft A.,

RA Dietrich F.S., Delius H., DiPaolo T., Dubois E., Duesterhoeft A.,

RA Dietrich F.S., Delius H., DiPaolo T., Dubois E., Duesterhoeft A.,

RA Dietrich F.S., Delius H., DiPaolo T., Dubois E., Duesterhoeft A.,

RA Hall J., Hebling U., Heumann K., Hilbert H., Hillier L.,

RA Hunicke-Smith S., Hyman R., Johnston M., Kalman S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston M., Kalman S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston M., Kalman S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston M., Kalman S., Kleine K.,

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RA Hunicke-Smith S., Hyman R., Johnston M., Kalman S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston M., Kalman S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston D., Lew H., Lin A., Lin D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston D., Lew H., Lin A., Lin D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston D., Lew H., Lin A., Lin D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston D., Lew H., Lin A., Lin D., Louis E.J.,

RA Hunicke-Smith S., Hyman R., Johnston S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Johnston S., Kleine K.,

RA Hunicke-Smith S., Hyman R., Hilbert H., Hiller L.,

RA Hunicke-Smith S., Hyman R., Hyman R., Hyman R., Lin D., Louis R.,

RA Hunicke-Smith S., Hyman R., Hyman R., Hilbert H., Hiller L.,

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Matches
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P27220;
01-AUG-1992
01-JUN-1994
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MEDLINE=97109535; PubMed-8951815;

Dang V.D., Valens M., Bolotin-Fukuhara M., Daignan-Fornier B.;

"Cloning of the ASN1 and ASN2 genes encoding asparagine synthetases in Saccharomyces cerevisiae; differential regulation by the CCAAT-box- binding factor.";

Mol. Microbiol. 22:681-692(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diphosphate + L-asparagine + L-glutamate.
-!- PATHWAY: Asparagine biosynthesis.
-!- SIMILARITY: CONTAINS 1 TYPE-2 GLUTAMINE AMIDOTRANSFERASE DOMAIN.
-!- SIMILARITY: TO OTHER ASN SYNTHETASES.
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MEDLINE=97313271; Pub
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3L; U40829; AAB68284.1; -.
3F; P22106; ICT9.
5; S0006349; ASN_Synthase.
terPro; IPR001962; ASN_Synthase.
terPro; IPR00583; GATase_2.
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PF00733; Asn_syn
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Pred. No. 83;
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                                                                                                                                                                                                                                                                               Pfam;
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EMBL; M74117; AAA46968.1;
PIR; A40824; W1WL35.
PIR; S36523; S36523.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE-94265501; PubMed-8205838;
Delius H., Hofmann B.;
"Primer-directed sequencing of hu
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Papillomavirus.
NCBI_TaxID=10587;
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                                                                                                                                                                                                                                                          Nuclea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: ATP-DEPENDENT DNA HELICASE REQUIRED FOR INITIATION OF VIRAL DNA REPLICATION. IT FORMS A COMPLEX WITH THE VIRAL E2 PROTEIN. THE E1-E2 COMPLEX BINDS TO THE REPLICATION ORIGIN WHICH CONTAINS BINDING SITES FOR BOTH PROTEINS.
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 499
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PF00524; E1_N;
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463
T 31
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LYDAK
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DPVS -> SSV (IN REF. 2).

QQ -> HE (IN REF. 2).

QX -> HE (IN REF. 2).

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NFKHITYVYIYNVYRVHGA (IN REF. 2).

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D ->
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GIYRPIFKKCTRWKSYISFRCKALSIVHIMPTFTYYI
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Barnett M.J., Fisher R.F., Jones T., Komp C., Abola A.P.,
A Barloy-Hubler F., Bowser L., Capela D., Galibert F., Gouzy J.,
A Gurjal M., Hong A., Huizar L., Hyman R.W., Kahn D., Kahn M.L.,
A Kalman S., Keating D.H., Palm C., Peck M.C., Surzycki R., Wells D.H.
A Yeh K.-C., Davis R.W., Federspiel N.A., Long S.R.;
"Nucleotide sequence and predicted functions of the entire
Sinorhizobium meliloti pSymA megaplasmid.";
If Proc. Natl. Acad. Sci. U.S.A. 98:9883-9888 (2001).
C -I- FUNCTION: PROPOSED TO PROVIDE ACTIVATED SULFATE FOR TRANSFER TO
NOD FACTOR. ATP SULFURYLASE MAY BE THE GTPASE, REGULATING ATP
C SULFURYLASE ACTIVITY (BY SIMILARITY).
C -I- FUNCTION: APS KINASE CATALYZES THE SYNTHESIS OF ACTIVATED SULFA
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Rosenberg C.;
The Rhizobium meliloti host range nodQ gene shares homology with translation elongation a wol. Microbiol. 3:745-755(1989).
                                                                                                                   EMBL;
EMBL;
EMBL;
PIR;
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Plasmid pSymA (megaplasmid 1).
Bacteria: Proteobacteria; alpha subdivision;
Rhizobiaceae; Sinorhizobium.
NCBI_TaxID=382;
                                                                                                                                                                                                                                use by non-profit institutions as long modified and this statement is not removed entitles requires a license agreement (See or send an email to license@isb-sib.ch).
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Nucleotide sequence and protein products of

of Rhizobium melliloti, nodP and nodO.";

Mol. Plant Microbe Interact. 2:181-194(1989).
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MEDLINE-89313304; PubMed-2546009;
Cervantes E., Sharma S.B., Maillet
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NODQ OR RA0469 OR SMA0857.
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                                                                                                                                                                                                                                                                                                                                                                                                                                    PHYSICALLY ASSOCIATED (POTENTIAL).
SIMILARITY: IN THE N-TERMINAL SECTION; BELONGS ELONGATION FACTOR FAMILY. CYSN/NODO SUBFAMILY.
SIMILARITY: IN THE C-TERMINAL SECTION; BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATALYTIC ACTIVITY: ATP + sulfate = diphosphate CATALYTIC ACTIVITY: ATP + adenylylsulfate = ADP phosphoadenylylsulfate. SUBUNIT: SULFATE-ACTIVATING ENZYMES, NODP AND NO
rPro; IPR002891; APS_kinase.
rPro; IPR004161; EFTU_D2.
rPro; IPR000795; EF_GTPbind.
rPro; IPR005225; Small_GTP.
; PF00009; GTP_EFTU; 1.
                                                                                                                   ; X14809; CAA32914.1; -.; M68858; AAA26343.1; -.; AE007237; AAK65127.1; S14899; ZZZRNQ.
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RESULT 10
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MEDLINE-87092340; PubMed-3467341;

Hemperly J.J., Edelman G.M., Cunningham B.A.;

"cDNA clones of the neural cell adhesion molecule (N-0 membrane-spanning region consistent with evidence for attachment via a phosphatidylinositol intermediate.";

proc. Natl. Acad. Sci. U.S.A. 83:9822-9826(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                              Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; (
Archosauria; Aves; Neognathae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCA1_CHICK STANDARD; PRT; 10
P13590; Q90919; Q90918;
01-JAN-1990 (Rel. 13, Created)
15-JUL-1998 (Rel. 36, Last sequence up
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Neural cell adhesion molecule 1, 180 k
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DOMAIN
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TIGRFAMS; TIGRO0455; apsK; 1.
PROSITE; PS00301; EFACTOR_GTP; 1.
Plasmid; Nodulation; Transferase;
Kinase; ATP-binding; Multifunction
                                            SEQUENCE OF 810-1069 FROM N.A. MEDLINE-87033934; PubMed-3771645; Murray B.A., Owens G.C., Prediger Cunningham B.A., Edelman G.M.; "Cell surface modulation of the ne
                                                                                                                                                                                                                     cytoplasmic Proc. Natl.
                                                                                                                                                                                                                                                                                                        Science
                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 1-175 FROM N.A., AND MEDLINE-87206190; PubMed-3576199; Cunningham B.A., Hemperly J.J., M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF03144; GT ProDom; PD002350;
                     developmental
                                                                                                                                                                                                                    **Reduce of a cDNA clone encoding the polysialic acid-rich "Sequence of a cDNA clone encoding the polysialic acid-rich cyroplasmic domains of the neural cell adhesion molecule N-Proc. Natl. Acad. Sci. U.S.A. 83:3037-3041(1986).
                                                                                                                                                                                                                                                                    SEQUENCE OF 128-1091 FROM N.A., MEDLINE-86206089; PubMed-3458261
                                                                                                                                                                                                                                                                                                                      domains,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACT_SITE
                                   resulting from alternative mRNA splicing
                                                                                                                                                                                                                                                                                                                 "Neural cell adhesion molecule: structure, immunocommains, cell surface modulation, and alternative
                                                                                                                                                                                                                                                                                                                                             Brackenbury R.,
                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID-9031;
           Cell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 LYDAK 5
                                                                                                                                                                                                                                                                                                        cell surface modu 236:799-806(1987).
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5; Conser
           Biol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LYDAK
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nilarity 100.0%;
Conservative 0
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31
110
165
467
524
           sequence.";
103:1431-1439(1986)
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50; APS_kinase;
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                                                                                                                                                                                                                                                                                                                                              Edelman G
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641
38
114
168
474
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Multifunctional enzyme; Complete proteome.

SULFATE ADENYLYL TRANSFERASE.

ADENYLYLSULFATE KINASE.

B GTP (BY SIMILARITY).

GTP (BY SIMILARITY).

GTP (BY SIMILARITY).

GTP (BY SIMILARITY).

ATP (POTENTIAL).
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; 1E1261F04ED33A93 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 26;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Eute; Galliformes; Phasianidae;
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                                                 neural
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                                                                       E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1091
                                                                                                                                                                                                                                                                                 PARTIAL
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kDa isoform
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                                                                       Crossin K.L.
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                                     'n
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rnative RNA splicing.";
                                     ۵
                                              adhesion
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                                   tissue-specific
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                                                                                                                                                          (N-CAM)
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Phasianinae;
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MEDLINE-93122797; PubMed-1478668;

Colwell G., Li B., Forrest D., Brackenbury

"Conserved regulatory elements in the promo gene.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-White leghorn;
Sasner M., Covault J.;
Submitted (AUG-1993) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 1-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: THIS PROTEIN .
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horn; TISSUE=Erythrocyte;
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RESULT 11
P152_YEAST
ID 9152_YEAST STAN
AC P39685;
DT 01-FEB-1995 (Rel. 3
DT 01-FEB-1995 (Rel. 3
DT 16-OCT-2001 (Rel. 4
DE Nuclear envelope po
GN POM152 OR YMR129W O
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Best Local S
Matches
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Pfam; PF00041; fn3; 2.
Pfam; PF00047; 19; 5.
SMART; SM00060; FN3; 2.
SMART; SM00410; IG_like; 1
SMART; SM0040B; IGC2; 4.
Cell adhesion; Glycoprotei
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L29437; AAB59957.1;
BL; M15935; AAB59957.1;
BL; X04479; CAB51638.1;
BL; X04479; CAB51638.1;
BL; X70342; CAB49807.1;
BL; X70342; CAB49807.1;
BL; X71218; CAB78113.1;
R; A43613; LICHNL.
SP; P40189; 1BQU.
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M15932;
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IPR003598;
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domain; Alter
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IG-LIKE C2-TYPE DOMAIN 2.
IG-LIKE C2-TYPE DOMAIN 3.
IG-LIKE C2-TYPE DOMAIN 4.
IG-LIKE C2-TYPE DOMAIN 4.
IG-LIKE C2-TYPE DOMAIN 5.
FIBRONECTIN TYPE-III 1.
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Pred. No. 1.6e+02;
                      protein POM152 (P150)
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Best Local :
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P73042;
P5-JUL-1999
15-JUL-1999
15-JUL-1999
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-I- FUNCTION: COMPONENT OF THE NUCLEAR PORE COMPLEX WHICH MAY THE NECESSARY ASYMMETRY REQUIRED FOR ANCHORING STRUCTURES CYTOPLASMIC FILAMENTS AND THE NUCLEOPLASMIC CAGE.

-I- SUBGULT: INTERACTS WITH NUP170 AND/OR NUP188.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                   Hypothetical SLR1764.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Synechocystis sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wozniak R.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-94186543; PubMed-8138573;
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SIMILARITY: TO S. POMBE SPBC29A10.07.
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S0004736; POM15
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Z48622; CAA88554.1;
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PORE SIDE (POTENTIAL).
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CISTERNAL SIDE (POTENTIAL).
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Best Local
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or send a
                                                                                                                                                                                                                                                           MEDLINE-96337999; PubMed-8688007;
Bult C.J., White O., Olsen G.J., Zhou L., Fleischmann R.D.,
Sutton G.G., Blake J.A., FitzGerald L.M., Clayton R.A., Gocayne J.D.,
Kerlavage A.R., Dougherty B.A., Tomb J.-F., Adams M.D., Reich C.I.,
Overbeek R., Kirkness E.F., Weinstock K.G., Merrick J.M., Glodek A.,
Scott J.L., Geoghagen N.S.M., Weidman J.F., Fuhrmann J.L., Nguyen D.,
Utterback T.R., Kelley J.M., Peterson J.D., Sadow P.W., Hanna M.C.,
Cotton M.D., Roberts K.M., Hurst M.A., Kalne B.P., Borodovsky M.,
Klenk H.-P., Fraser C.M., Smith H.O., Woese C.R., Venter J.C.;
Complete genome sequence of the methanogenic archaeon, Methanococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the El the European Bioinformatics Institute. There are no restuse by non-profit institutions as long as its content modified and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synechocystis sp. strain PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions."; DNA Res. 3:109-136(1996).
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Hypothetical protein;
SEQUENCE 179 AA; 1
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16-OCT-2001
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ween the Swiss Institute . The European Bioinformatics Institute. The European Brown institutions as long
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1 protein MJ0418.
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Best Local
                                                                                                                                                         This SWI
                                                                                                                                                                                                                                                                                                                                                                           STRAIN-0157:H7 / RIMD 0509952;
MEDLINE-21156231; PubMed-11258796;
Hayashi T., Makino K., Ohnishi M., Kurokawa K., Ishii K., Yokoya Han C.-G., Ohtsubo E., Nakayama K., Murata T., Tanaka M., Tobe T Iida T., Takami H., Honda T., Sasakawa C., Ogasawara N., Yasunag Kuhara S., Shiba T., Hattori M., Shinagawa H.;
"Complete genome sequence of enterohemorrhagic Escherichia coli 0157:H7 and genomic comparison with a laboratory strain K-12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genome sequence of enterohaemorrhagic Escherichia Nature 409:529-533(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perna N.T., Plunkett G. III, Burland V., Mau B., Glasner J.D., Rose D.J., Mayhew G.F., Evans P.S., Gregor J., Kirkpatrick H.A., Posfai G., Hackett J., Kink S., Boutin A., Shao Y., Miller L., Grotbeck E.J., Davis N.W., Lim A., Dimalanta E.T., Potamousis K., Apodaca J., Anantharaman T.S., Lin J., Yen G., Schwartz D.C., Welch R.A., Blattner F.R.;
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TIGR;
                                                          or send an
                                                                                                                                   the European Bioinformatics Institute.
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XDHB OR Z4206 OR ECS3740.
Escherichia coli O157:H7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-0157:H7 / EDL933 / ATCC 700927;
MEDLINE-21074935; PubMed-11206551;
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15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Xanthine dehydrogenase, FAD binding subunit (EC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDHB_ECO57
                                                                                                                                                             Source (purine catabolism; et NAD(+) + H(4)0 CATALYTIC ACTIVITY: Xanthine + NAD(+) + H(4)0 COFACTOR: FAD (By similarity).

PATHWAY: Purine catabolism; first committed step.

SUBUNIT: Heterotrimer of xdhA, xdhB and xdhC (Probable).

SUBUNIT: Heterotrimer of xdhA, xdhB and xdhC (Arough a though a thou
                                                                                                                                                                                                                                                                 Participates in limited purine salvage (requires aspartate) does not support aerobic growth on purines as the sole carb source (purine catabolism) (By similarity).

CATALYTIC ACTIVITY: Xanthine + NAD(+) + H(2)0 - urate + NAD
                                                                                                                                                                                                                                                                                                                                            Res. 8:11-22(2001). FUNCTION: Presumed to be a dehydrogenase,
                                                                                                                               SWISS-PROT entry is copyright. It is produced through
sen the Swiss Institute of Bioinformatics and the En
European Bioinformatics Institute. There are no resti
     AE005516;
AP002563;
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email to license@isb-sib.ch).
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BAB37163.
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Query Match
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Oxidoreductase; NAD; Flavoprotein; Purine salvage; Complete proteome. SEQUENCE 292 AA; 31556 MW; 74A
                                                        InterPro; IPR005107; CO_deh_flav_C.
InterPro; IPR002346; dehydrog_molyb.
Pfam; PF00941; FAD_binding_5; 1.
Pfam; PF03450; CO_deh_flav_C; 1.
                                                                                                                                                  EMBL; U28375; AAA83048.1; -. EMBL; AE000370; AAC75905.1:
                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-20444178; PubMed-10986234;
Xi H., Schneider B.L., Reitzer L.;
"Purine catabolism in Escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=K12 / MG1655;
MEDLINE=97426617; PubMed=9278503;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q46800;
01-NOV-1997
                                                                                                                                                                                                           or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                              entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J. Bacteriol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISCUSSION OF
STRAIN-K12 / V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Escherichia coli.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xanthine dehydrogenase, XDHB OR B2867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Purine salvage; SEQUENCE 292
                                                                                                                                   EcoGene; EG13050;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dehydrogenase in purine salvage."
J. Bacteriol. 182:5332-5341(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The complete genome sequence Science 277:1453-1474(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mau B., Shao Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oxidoreductase; NAD; Flavoprotein; FAD;
                                                                                                                                                                                                                                                                                                                                      GOES INC. SUFFICE CATABOLISM).

SOUTCE (purine catabolism).

CATALYTIC ACTIVITY: Xanthine + NAD(+) +
COFACTOR: FAD (By similarity).

PATHWAY: Purine catabolism; first commit
SUBUNIT: Heterottimer of XdhA, XdhB and
                                                                                                                                                                                                                                                                                     European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: presumed to be a dehydrogenase, but Participates in limited purine salvage (requir
                                                                                                                                                                                                                                                                                                                                                                                                                                                       does not support aerobic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _ECOLI
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                                                                                                                                                                                                                          non-profit institutions as long as its content is and this statement is not removed. Usage by and for requires a license agreement (See http://www.isb-sib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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   74A07D137DA857E8
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                                     FAD;
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                                         Purine metabolism;
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C outstation -
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DB

|     |                         |      | Search completed: July 11, 2003, 11:55:18<br>Job time : 1.47817 secs | Oy 1 LYDAK 5<br>:    <br>Db 130 IYDAK 134 | Best Local Similarity 80.0%; Pred. No. 1.3e+02; Matches 4; Conservative 1; Mismatches 0; Ind |
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26
1 LYDAK 5
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1: sp_archea:*
2: sp_bacteria
3: sp_fungi:*
4: sp_human:*
5: sp_inverteb:
6: sp_mammal:*
7: sp_mhc:*
8: sp_organel:
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:
12: sp_vius:*
13: sp_verteb:
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Gapop 10.0 , Gapext 0.5
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Q973b2 sulfolobus
Q971j3 lactobarill
Q8suh3 encephalito
Q01760 caenorhabdi
Q66796 aquifex aeo
Q8u3h5 pyrococcus
Q58353 pyrococcus
Q22438 caenorhabdi
Q9asil oryza sativ
Q88960 unidentifie
Q9fcv9 listeria mo
Q8t3h1 caenorhabdi
Q926w7 listeria mo
Q91515 campylobact
Q9p716 schizosacch
Q9ca01 arabidopsis
                                                                                                                                                                                   Description
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| 45     | 44                 | 43                 | 42     | 41                 | 40     | 39                   | 38     | 37     | 36     | 35<br>5            | 34                 | 3<br>3 | 32     | 31                 | 30     | 29     | 28                 | 27                 | 26     | 25                 | 24     | 23                 | 22                 | 21     | 20                 | 19                | 18                 | 17                 |
|--------|--------------------|--------------------|--------|--------------------|--------|----------------------|--------|--------|--------|--------------------|--------------------|--------|--------|--------------------|--------|--------|--------------------|--------------------|--------|--------------------|--------|--------------------|--------------------|--------|--------------------|-------------------|--------------------|--------------------|
| 26     | 26                 | 26                 | 26     | 26                 | 26     | 26                   | 26     | 26     | 26     | 26                 | 26                 | 26     | 26     | 26                 | 26     | 26     | 26                 | 26                 | 26     | 26                 | 26     | 26                 | 26                 | 26     | 26                 | 26                | 26                 | 26                 |
| 100.0  | 100.0              | 100.0              | 100.0  | 100.0              | 100.0  | 100.0                | 100.0  | 100.0  | 100.0  | 100.0              | 100.0              | 100.0  | 100.0  | 100.0              | 100.0  | 100.0  | 100.0              | 100.0              | 100.0  | 100.0              | 100.0  | 100.0              | 100.6              | 100.0  | 100.0              | 100.0             | 100.0              | 100.0              |
| 491    | 475                | 474                | 464    | 464                | 460    | 450                  | 448    | 439    | 430    | 428                | 421                | 409    | 401    | 398                | 377    | 370    | 357                | 356                | 354    | 354                | 341    | 334                | 331                | 329    | 306                | 304               | 301                | 299                |
| 16     | ഗ                  | 10                 | 10     | 10                 | ഗ      | 13                   | 17     | 16     | 16     | 16                 | 16                 | 16     | 13     | 2                  | 16     | 16     | 10                 | 16                 | 12     | 12                 | 16     | N                  | 9                  |        |                    | 17                | 16                 | 17                 |
| Q8ZLZ4 | 094404             | P93773             | Q944F8 | Q94ETO             | Q8WS95 | Q90809               | Q974Y6 | Q8U6J7 | Q9RIV4 | Q98M33             | Q9EV35             | Q98IS9 | Q90976 | Q9KWX7             | Q985U9 | Q8XK23 | Q9FJ41             | Q9RRJ2             | Q67629 | Q9E6M3             | Q91072 | Q8RPD7             | Q94M05             | Q93PV9 | Q936E9             | Q97V63            | Q97GN2             | Q8TKS0             |
| 4      | Q94404 caenorhabdi | P93773 pinus sylve | hevea  | Q94et0 hevea brasi |        | . Q90809 gallus gall |        |        |        | Q98m33 rhizobium 1 | Q9ev35 staphylococ |        | σ      | Q9kwx7 staphylococ |        |        | Q9fj41 arabidopsis | Q9rrj2 deinococcus |        | Q9e6m3 turkey herp | Ñ      | `Q8rpd7 legionella | Q94m05 bacteriopha |        | Q936e9 staphylococ | Q97v63 sulfolobus | Q97gn2 clostridium | Q8tks0 methanosarc |

## ALIGNMENTS

| O973B2 O973B2 PRELIMINARY; PRT; 107 AA. AC 0973B2; DT 01-DEC-2001 (TrEMBLrel. 19, Created) DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update) DE putative transcriptional regulator.  SU 10-DEC-2001 (TrEMBLrel. 19, Last sequence) CC Sulfolobus tokodaii. CC Archaea; Crenarchaean, Potata A., Formal A., Fukui S., R., Naharabayasi Y., Hino Y., Horikawa H., Jin-no K., Takahashi M., R., Sekine M., Baba ST., Ankai A., Kosugi H., Hosoyama A., Fukui S., R., Nayai Y., Nishijima K., Otsuka R., Nakazawa H., Takamiya M., Kato Y., Yoshizawa T., Tahaka T., Kudoh Y., Yamazakai J., Kushida N., Oguchi A., R., Nakazawa T., Tahaka T., Kudoh Y., Yamazakai J., Kushida N., Oguchi A., Sekine M., Basuda S., Yanagi M., Nishimura M., Yamagishi A., Oghima T., Kikuchi H.;  "Complete genome sequence of an aerobic thermoacidophilic RT Crenarchaeon, Sulfolobus tokodaii strain?.";  DAR Res. 8:123-140(2001). DR EMBL, Ap000984: BAB66001.1; DR EMBL, Ap000984: BAB66001.1; DR EMBL, Ap000984: BAB66001.1; DR EMBL, Ap000984: BAB66001.1; DR EMBL, Ap000984: BAB6001.1; DR EMBL, Ap000984: BAB66001.1; DR EMBL, Ap00984: BAB66001.1; DR EMBL, Ap00984: BAB66001.1; DR EMBL, Ap00984: BAB66001.1; DR EMBL, Ap00984: BAB66001.1; DR EMBL, Ap0098 |
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Best Local :
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EMBL; AJ131519; CAB52483.1; -.

InterPro; IPR001387; HTH_3.

Pfam; PF01381; HTH_3; H.

SMART; SM00530; HTH_XEE; 1.

SEQUENCE 108 AA; 12086 MW; EC910
                                                                                                                   01-JUN-2002 (TrEMBLre)
01-JUN-2002 (TrEMBLre)
01-JUN-2002 (TrEMBLre)
Hypothetical protein i
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Q9T1J3;
Q1-MAY-2000
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MEDLINE-95138034; PubMed=7836307;

Henrich B., Binishofer B., Blaesi U.;

"Primary structure and functional analysis o
Lactobacillus gasseri bacteriophage phi-adh.

J. Bacteriol. 177:723-732(1995).
                                       Encephalitozoon cuniculi.
Eukaryota; Microsporidia;
NCBI_TaxID=6035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fremaux C., De Antoni G., Raya R., Klaenhammer T.; "Genetic organization and sequence of the region encoding infunctions from Lactobacillus gasseri temperate bacteriophage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Altermann E., Klein J., Honrich 
"Primary structure and features 
gasseri temperate bacteriophage 
Gene 236:333-346(1999).
    SEQUENCE
                                                                                                         ECU10_0230.
                                                                                                                                                                                                          Q8SUH3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lactobacillus bacteriophage Viruses; dsDNA viruses, no !
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01-DEC-2001
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OO170L-1997 (TrEMBLrel. 04, Created)
O1-DEC-2001 (TrEMBLrel. 19, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Hypothetical 19.3 kDa protein.
F55A12 2.
                                                                                    Submitted (OCT-2001) to the EMBL; AF003130; AAB54128.2; Hypothetical protein.
                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN=BRISTOL N2; MEDLINE=99069613;
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Eukaryota; Metazoa; Nem
Rhabditidae; Peloderina
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                                                                             SEQUENCE
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                                                                                                                                                                Pauley A., Gattung S
"The sequence of C.
Submitted (MAY-1997)
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STRAIN-BRISTOL N2;
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175 AA; 1
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EMBL/GenBank/DDBJ
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  058353
                                                                                                                                                                                                                                                                                                                                                 STRAIN-VC1 / DSM 3638 / ATCC 43587 / JCM 8422; Weiss R.B., Dunn D.M., Robb F.T., Brown J.R.; "The complete sequence of the Pyrococcus furiosus genome."; Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases. EMBL; AE010171; AAL80615.1; -.
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EMBL; AE000693; AAC06761.1; -.
EMBL; FR0002934; NTP_transf.
InterPro; IPR001201; PAP_25A_core.
Pfam; PF01309; NTP_transf.2; 1.
Hypothetical protein; Complete proteome.
Hypothetical protein; Complete proteome.
178 AA; 20421 MW; C3EF96B8B9A78F42 CRC64;
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Bacteria; Aquificae;
NCBI_TaxID-63363;
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2.2e+02;
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Hypothetical protein PH0619.
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"MRL; Z68752; CAn...
"MRL; 199 AA;
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01-AUG-1998
01-AUG-1998
01-JUN-2002
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Kawarabayasi Y., Sawada M., Horikawa H., Haikawa Y., Hino Y.,
Kawarabayasi Y., Sawada M., Horikawa H., Hosoyama A., N
Yamamoto S., Sekine M., Baba S.-I., Kosugi H., Hosoyama A., N
Sakai M., Ogura K., Otsuka R., Nakazawa H., Takamiya M., Ohfu
Funahashi T., Tanaka T., Kudoh Y., Yamazaki J., Kushida N., O
Aoki K.-I., Yoshizawa T., Nakamura Y., Robb F.T., Horikoshi K
Masuchi Y., Shizuya H., Kikuchi H.;
"Complete Sequence and gene organization of the genes of a
                                                                                                                                                                                                                                                                                                                                   Sims
                                                                                                                                                                                                                                                                                                                                                                                                                      Caenorhabditis elegans.
Eukaryota; Metazoa; Nemat
Rhabditidae; Peloderinae;
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01-NOV-1996 (TrEMBLrel.
01-JAN-1998 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
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InterPro; IPRO05241; TFILE-alpha-rel.
Pfam; PF02002; TFIIE_alpha; 1.
SMART; SM00531; TFIIE; 1
TIGRO0373; 1.
TIGRO0373; TIGRO0373; 1.
TIGROMENTE PROCECUTE PROCECUTE COMPLETE COM
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Archaea; Euryarchaeota
                                                                                                                                                              "Genome sequence of the nematode investigating biology."; Science 282:2012-2018(1998).
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9 AA; 23636 MW;
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horikoshii OT3.";
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Matches 5
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Submitted (AUG-2000) to the EMBL/Genbana/
EMBL; AP002882; BAB39866.1; -.
EMBL; AP002845; BAB398632.1; -.
EMBL; AP002845; BAB78632.1; -.
InterPro; IPR000169; SHprot_acsite.
InterPro; IPR000169; SHprot_acsite.
PROSITE; PS00639; THIOL_PROTEASE_HIS; UNKNOWN_1.
PROSITE; PS00639; THOL_PROTEASE_HIS; UNKNOWN_1.
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Q88960;
01-NOV-1996
01-NOV-1996
01-MAR-2002
                                                                                                                                                                                       SEQUENCE FROM N.A.

MEDLINE-96316404; PubMed-8702280;
Chen F., Suttle C.A., Short S.M.;
"Genetic diversity in marine algal virus communities as sequence analysis of DNA polymerase genes.";
Appl. Environ. Microbiol. 62:2869-2874(1996).
-!- CATALYTIC ACTIVITY: N DEOXYNUCLEOSIDE TRIPHOSPHATE
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
01-39806.1 protein (P0482C06.29 protein).
P0439806.1 OR P0482C06.29.
Oryza sativa (Rice).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Spermatophyta; Magnollophyta; Liliopsida; Poales; Plehrhartoideae; Oryzaae; Oryzaa.
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Unidentified phycodnavirus
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NCBI_TaxID=43245;
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Sasaki T., Matsumoto T., Yaman
"Oryza sativa nipponbare(GA3)
clone:P0482C06.";
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SIMILARITY: BELONGS TO DNA
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                             Pro; IPR002064; DNA_pol_B.
PF00136; DNA_pol_B; 2.
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01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "The L. monocytogenes parAB locus.";
Submitted (AUG-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ010494; CAC06097.1; -.
InterPro; IPR000707; ATPase_ParA.
InterPro; IPR000392; NitrogenaseII.
Pfam; PF00991; ParA; 1.
PRINTS; PR00091; NITRGGNASEII.
               "Genome sequence of the nem investigating biology. The Science 282:2012-2018(1998)
                                                                                                           SEQUENCE FROM N.A.
STRAIN=BRISTOL N2;
MEDLINE=99069613;
                                                                                                                                                                                    Caenorhabditis elegans.
Eukaryota; Metazoa; Nemato
Rhabditidae; Peloderinae;
NCBI_TaxID=6239;
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01-JUN-2002 (TrEMBLrel. 21, La:
01-JUN-2002 (TrEMBLrel. 21, La:
Hypothetical 27.7 kDa protein.
F55Al2.2.
SEQUENCE FROM N.A.
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Bacteria; Firmicutes; B
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STRAIN-BRISTOL N2;

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Waterston R.;
Submitted (APR-2002) to the EN
EMBL; AF003130; AAM15579.1; -
Hypothetical protein.
Hypothetical protein.
SPOUENCE 250 AA; 27678 MW;
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Baquero F., Berche P., Bloecker H., Brandt P., Chakraborty T.,
Charbit A., Chetouani F., Couve E., de Daruvar A., Dehoux P.,
Domann E., Dominguez-Bernal G., Duchaud E., Durant L., Dussurget O.,
Entlan K.-D., Fshh H., Garcia-del Portillo F., Garrido P.,
Gautier L., Goebel W., Gomez-Dopez N., Hain T., Hauf J., Jackson D.,
Jones L.-M., Kaerst U., Kreft J., Kuhn M., Kunst F., Kurapkat G.,
Maddueno E., Maltournam A., Mata Vicente J., Ng E., Nedjari H.,
Nordsiek G., Novella S., de Pablos B.,
Rose M., Schlueter T., Simoes N., Tierrez A.,
Vazquez-Boland J.-A., Voss H., Wehland J., Cossart P.;
"Comparative genomics of Listeria species.";
                                                                                                                                                                                                                                                               Listilist; LINO2923;
Listilist; LMO02791;
InterPro; IPR000707;
                                                                                                                                                                                                                                                                                                                                   Science 294:849-852(2001).
EMBL; AL591984; CAD01004.1; -.
EMBL; AL59174; CAC98148.1; -.
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STRAIN-EGD-E / SEROVAR 1/2A, AND CLIP 11262 / SEROVAR
MEDLINE-21537279; PubMed-11679669;
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01-DEC-2001 (TremBLrel.
01-JUN-2002 (TremBLrel.
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                                                                                                                                                                                             SEQUENCE 253 AA
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01-OCT-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-NCTC 11168;
MEDLINE-20150912; PubMed-10688204;
MEDLINE-20150912; PubMed-10688204;
Parkhill J., Wren B.W., Mungall K., Ketley J.M., Churcher C.,
Basham D., Chillingworth T., Davies R.M., Feltwell T., Holroyd S.,
Jagels K., Karlyshev A.V., Moule S., Pallen M.J., Penn C.W.,
Juail M.A., Rajandream M.A., Rutherford K.M., van Vilet A.H.M.,
                                                                                                                                                                                                                                                               01-OCT-2000 (TrEMBLrel. 15, 01-OCT-2000 (TrEMBLrel. 15, 01-MAR-2002 (TrEMBLrel. 20, Putative methyltransferase. SPBC21C3.07C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "The genome sequence of the food-borne pathogen Campylobacter jejuni reveals hypervariable sequences.";
Nature 403:65-668(2000).
EMBL: AL139074; CAB72595.1;
                                                                                                                                     Seeger K., Harris D., Lyne M
Submitted (FEB-2000) to the
EMBL; AL157918; CAB76043.1;
                                                                                                                                                                                                                              Schizosaccharomyces pombe (Fission yeast).
Eukaryota; Fungi; Ascomycota; Schizosaccharomycetees;
Schizosaccharomycetales; Schizosaccharomycetaceae;
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Bacteria; Proteobacteria;
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                                                                                         Methyltransferase;
SEQUENCE 281 AA;
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InterPro; IPR000051; SAM_bind.
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Pred. No.
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BL/GenBank/DDBJ databases.
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                                                                                          222B60A6AA44B039 CRC64;
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04-MAR-1993;
                                                                                                                                                                                                                                                                                                                                  Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                    WPI; 1994-058782/08
                                                   Ishida N, Iv
Tsujimoto M,
                                                                                                                                                                                                      19-ЈИГ-1993;
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                                                                                                                                                                                                                                                                      EP583884-A.
                                                                                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR57114 standard; peptide; 5 AA.
                                                                                                    (SUNR ) SUNTORY LTD.
(TSUJ/) TSUJIMOTO M.
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M, Tsuruoka N, Yamag
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93JP-0067339.
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ALIGNMENTS

Minimum DB Maximum DB

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Database

Title: Perfect score:

Run on: OM protein -

Scoring table: Sequence:

ABP34745 AAO07397 ABP42905

Human secreted pro
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Human secreted pro
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Human ORF3718 prot
Human ovarian anti
Arabidopsis thalia
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AAG08094 AAG08093 AAG08092 ABB65978

AAB61570 AAB33870 ABB08249 AAG02988 AAG03363

AAB61551 AAB61552 AAB61553 AAB61556

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AAY22237 AAB10667 AAB61548 AAB61550

AAG70684
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K, Nakazato Yamaichi K;

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Matches 5
         diseases associated with inappropriate GENSET gene expression. For example, they be used to treat disorders associated with decreased GENSET gene expression by rectifying mutations or deletions in a patient's genome that affect the activity of GENSET or by supplementing
                                                 The invention relates to full length GENSET human nucleic acids encod potentially secreted proteins. The nucleic acids and the polypeptides they encode may be used in the prevention, treatment and diagnosis of diseases associated with inappropriate GENSET gene expression. For
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease
                                                                                                                     Claim
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                                                                                                                                               diseases,
                                                                                                                                                          Full length GENSET human proteins, useful in gene
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06-MAR-2000; 2000US-0187470
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                                   Human MDF can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoietin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antisense nucleic acid molecules may be administered to down regulate GENSET expression by binding with the cells' own genes and preventing their expression. The sense and antisense nucleic acids may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acid sequences in samples, and hence to determine which patients may be in need of restorative therapy. The GENSET polypeptides may be used as antigens in the production of antibodies and in assays to identify modulators (agonists and antagonists) of GENSET polypeptide expression and activity. The present sequence is a GENSET polypeptide of the invention.
                                                                                                                                                                                                                                                                                                     (SUNR )
(TSUJ/)
                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                            17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                      decrease
                                                                                                                                                                                 New megakaryocyte differentiation factor - isolated from human epidermoid carcinoma cells, used to treat conditions involving
                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                              Tsujimoto
                                                                                                                                                                                                                                                                            Ishida
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DB; AAQ56670.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                            Iwasa F,
                                                                                                                                                                    platelets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                         exhibits
                                                                                                                                           30-32; 47pp;
                                                                                                                                                                                                                                                                 Tsuruoka
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                                                                                            92JP-0212305
93JP-0067339
                                                                                                                                                                                                                                                                                                                                                                                    93EP-0305654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           differentiation factor; ...., ulating factor; thrombocytopaenia; ....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            differentiation
                                                                                                                                                                                                                                                              Kurihara
ka N, Yam
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                         an
                         isoelectric
                                                                                                                                           English.
                                                                                                                                                                                                                                                              ra T, Miura
Yamaguchi N,
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor; MDF; thrombopoietin;
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                        point of 6.0-7.0
                                                                                                                                                                                                                                                                 K, Nakazato
Yamaichi K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63;
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Sequence

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RESULT 4
AAYO8254
ID AAYO
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AAB24142
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Best Local S
Matches 5
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                     This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosts of diseases involving mesangial cells, such as IgA nephropathy.
Megsin; mesanglum-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder;
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-276983/23.
N-PSDB; AAX56712.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY08254 standard;
                                                       Human megsin protein sequence SEQ ID NO:2.
                                                                                             30-JAN-2001
                                                                                                                                 AAB24142;
                                                                                                                                                                 AAB24142 standard; Protein; 380 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Megsin; mesangial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY08254;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human; rat; murine.
                                                                                                                                                                                                                                                              284 NYEMK 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Page 62-64; 100pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      284 NYEMK 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYEMK 5
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                                                                                                                                                                                                                                                                                                                                  Similarity
5; Conser
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                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein;
                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .08;
                                                                                                                                                                                                                                                                                                                                  0
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Pred. No. 1.6
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                   Score 28; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ⋛
                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                               DB 20;
1.6e+02;
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                                                                                                                                                                                                                                                                                                                                                                  Length 380;
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                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                Gaps
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AAB83075
ID AAB8
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Best Local S
Matches 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the human megsin protein, which is given in the exemplification of the present invention.
                    06-OCT-1999;
                                                     06-OCT-2000; 2000WO-JP06988
                                                                                           12-APR-2001
                                                                                                                             WO200124628-A1
                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                 Human; megsin; mesangial cell transgenic mouse; glomerular o
                                                                                                                                                                                                                                                        Human megsin protein
                                                                                                                                                                                                                                                                                              10-JUL-2001
                                                                                                                                                                                                                                                                                                                                  AAB83075;
                                                                                                                                                                                                                                                                                                                                                                    AAB83075 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 2; Page 66-69; 93pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   biological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Evaluating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-611642/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-MAR-2000; 2000WO-JP01646
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diagnosis; biological sample; blood; urine
                                                                                                                                                                                                                                                                                                                                                                                                                                                              284 NYEMK 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 NYEMK 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA99294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    renal function comprises assaying megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          380 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                            (first entry)
                    99JP-0285736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99JP-0075305
99JP-0306623
                                                                                                                                                                                                                                                                                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                      380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                     disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 28; DB
Pred. No. 1.6
); Mismatches
                                                                                                                                                                                                   proliferative nephritis; nephrotropic;
disease; animal model; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 1.6e+02;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
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RESULT 7
AAG31168
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Best Local S
Matches 5
   25-FEB-1999
05-MAR-1999
09-MAR-1999
23-MAR-1999
25-MAR-1999
29-MAR-1999
01-APR-1999
01-APR-1999
16-APR-1999
11-APR-1999
23-APR-1999
23-APR-1999
23-APR-1999
23-APR-1999
30-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is human megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is usefu for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                                                                                                                                                                                                                                                                                  06-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAG31168 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-300136/31.
N-PSDB; AAF82438.
                                                                                                                                                                                                                                                                                                                                25-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Arabidopsis thaliana protein fragment SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAG31168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 4; Page 44-46; 62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            termination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KURO/) KUROKAWA (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 method.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence
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 99US-0121825

99US-0123548

99US-0125788

99US-0126785

99US-0126785

99US-0127462

99US-0128234

99US-0128234

99US-0128736

99US-0130477

99US-013049

99US-0130491

99US-0130481

99US-013048

99US-013248
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
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O; Mismatches
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hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DВ
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RESULT 8
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This invention describes novel Staphylococcus-specific oligonucleotides based on the consensus femA nucleotide sequence which are used to develop products for the identification, detection and therapy of infections. The oligonucleotides can be used for the genetic amplification, the identification and/or quantification of various femA
                                                                                                                                                                                                                                                                           Gala
                                                                                                                           Claim 16; Fig 6a-b; 48pp; English.
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fication; genotyping; gram-positive bacteria;
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UNIV CATHOLIQUE LOUVAIN.
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nilarity 100.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequences which are specific to known or unknown Staphylococci species. Since the femA sequence is similar to the femB sequence, the oligonucleotides can also be used for the molecular genotyping of femB genes of different Staphylococci species or other gram-positive bacteria. The femA nucleic acids can also be used in therapeutic applications. They can also be used to identify inhibitors, e.g. antibodies or antisense oligonucleotides, for blocking expression of the femA nucleotide sequences. They can also be used for producing vaccines against Staphylococci infections.
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1.8e+02;
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RESULT 10

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| אקי פי                                                                                                                                                                                                   | א ה<br>א ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | א ה<br>א ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה                                                                                                                                                                                                                                                                                          | קק<br>קק<br>קק<br>קקק<br>קקק<br>קקק<br>קקק<br>קקק<br>קקק<br>קקק                                                                                                                                                                                                                                                                                                                          |
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 68-74; 82pp; Japanese.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-DEC-1997;
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DB; AAX84667.
                                                                                                                                                                                            438
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5; Conserv
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SHIBUYA M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5.
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                                                                                                                                                                                                                                                                                                            Score 28;
Pred. No.
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AAB61548
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AAB61548;

AAB61548 standard;

Peptide;

32

03-APR-2001

(first entry)

Peptide

WINZIPA1 used to identify hetero-associating peptides.

coiled-coil peptide; heterodimerisation

Unidentified

Hetero-associating

WO200100814-A2

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                                                                    Query Match
Best Local
                                                      Matches
                                                                                                                                                                                           alternan sucrase (E.C. 2.4.1.140 - an enzyme, that belongs to the glucosyltransferase group) The recombinant, purified alternan sucrase gene is useful for the fermentative production of alternan (a carbohydrate) and/or fructose by secreting the enzyme into a saccharose-containing culture medium. Alternatively, the enzyme is contacted with a saccharose-containing solution. The alternan and/or fructose is then isolated from the medium. Cosmetle products or foodstuffs containing alternan can be produced. Recombinant production alternan sucrase is advantageous as it provides a cost effective means recombined for the features.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (PLAN-)
                                                                                                                                          producing fructose for high fructose containing syrups, production of which previously has been achieved by costly production from maize starch. This sequence represents the Leuconostoc mesenteroides alternan sucrase protein which is described in the method of the invention.
                                                                                                                                                                                                                                                                                                           This invention describes a novel nucleic acid molecule (I) encoding an alternan sucrase (E.C. 2.4.1.140 - an enzyme, that belongs to the
                                                                                                                                                                                                                                                                                                                                                                                                  New nucleic acid encoding alternan sucrase protein a
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1003 NYEMK 1007
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DB; AAA97904.
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                                                      Similarity 5; Conserv
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MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                                                                                                                                                                                                                       64pp;
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and methods of alternan and
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                                                     Score 28; DB 21;
Pred. No. 9.6e+02;
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Best Local
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  Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to a method for identifying hetero-associating colled-coil peptides. The method comprises providilibrary of peptides with the general formula of AAB61546, and a secon library of peptides with the general formula of AAB61547.

Hetero-association of peptides from the two libraries can then be screened for via a screenable or selectable property caused by the hetero-association of the two peptides. The identified peptides can bused for heterodimerisation of fusion proteins. The present sequence hetero-associating peptide that can be used in method of the present
                        Identifying heteroassociating (poly)peptides involves designing an appropriate coiled-coil library and screening by using a library v library approach
                                                                                                   Plueckthun
                                                                                                                                                                           26-JUN-2000;
                                                                                                                                                                                                   04-JAN-2001.
                                                                                                                                                                                                                          WO200100814-A2
                                                                                                                                                                                                                                                  Unidentified
                                                                                                                                                                                                                                                                         Hetero-associating
                                                                                                                                                                                                                                                                                               Peptide WINZIPA3 used to identify hetero-associating peptides
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                                                                                                                          (UYZU-) UNIV ZUERICH
                                                                                                                                                  25-JUN-1999;
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  Page 40;
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56pp; English
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RESULT 15
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                       The present invention relates to a method for identifying hetero-associating coiled-coil peptides. The method comprises providing library of peptides with the general formula of AAB61547, and a second library of peptides with the general formula of AB61547. Hetero-association of peptides from the two libraries can then be screened for via a screenable or selectable property caused by the hetero-association of the two peptides. The identified peptides can be used for heterodimerisation of fusion proteins. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a method for identifying hetero-associating coiled-coil peptides. The method comprises providing library of peptides with the general formula of AAB61547.

Hetero-association of peptides from the two libraries can then be screened for via a screenable or selectable property caused by the hetero-association of the two peptides. The identified peptides can be used for heterodimerisation of fusion proteins. The present sequence is hetero-associating peptide that can be used in method of the present
                                                                                                                                                                                                   Identifying appropriate
                                                                                                                                                               Claim 5;
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                                                                                                                                                                                                                                                                                                                                                                                                                    Unidentified.
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library and screening by using a library v
                                                                                                                                                               English.
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Pred. No. 55;
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Query Match Best Local : Matches

Similarity 4; Conserv

Conservative

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Pred. No. 55; l; Mismatches Score

0;

Indels

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Gaps

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No.

55;

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Length 32;

89.3%;

Sequence

32

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Maximum DB
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Listing first 45 summaries
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1: /cgn2_6/ptodata/1/

2: /cgn2_6/ptodata/1/

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US-08-472-659-8
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| 89.3              | 89.3              | 89.3              | 89.3              | 89.3              |                   |                   |                   |                   |                   | 89.3              |                     |                   |                   |                   |                   | 89.3              | 89.3              |
| 2254              | 2254              | 1090              | 1090              | 1090              | 563               | 554               | 554               | 485               | 429               | 429               | 422                 | 419               | 415               | 415               | 415               | 415               | 398               |
| N                 | N                 | 5                 | w                 | w                 | 4                 | 4                 | 4                 | N                 | S                 | w                 | 4                   | _                 | N                 | ᆫ                 | _                 | ب                 | ν                 |
| US-08-790-519-3   | US-08-677-010-3   | PCT-US95-11808-3  | US-08-726-214-4   | US-08-307-896-3   | US-08-916-481-3   | US-08-916-481-2   | US-09-321-276-4   | US-08-416-870C-2  | PCT-US95-11808-4  | US-08-307-896-4   | US-09-134-001C-5230 | US-08-330-154-2   | US-08-939-727-5   | US-08-442-281-5   | US-08-442-282-5   | US-07-757-390-5   | US-08-939-727-6   |
| Sequence 3, Appli | Sequence 3, Appli | Sequence 3, Appli | Sequence 4, Appli | Sequence 3, Appli | Sequence 3, Appli | Sequence 2, Appli | Sequence 4, Appli | Sequence 2, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 5230, Ap   | Sequence 2, Appl1 | Sequence 5, Appli | Sequence 5, Appli | Sequence 5, Appli | Sequence 5, Appli | Sequence 6, Appli |

## ALIGNMENTS

| APPLICATION NUM FILING DATE: 1: PRIOR APPLICATION NUM APPLICATION NUM FILING DATE: 0: PRIOR APPLICATION NUM FILING DATE: 0: PRIOR APPLICATION NUM APPLICATION NUM APPLICATION NUM FILING DATE: 1: ATTORNEY/AGENT INI NAME: MCGOWAN, REGISTRATION NUM REFERENCE/DOCKE: TELECOMMUNICATION TELEPHONE: (70: TELEPAX: (703) INFORMATION FOR SEQ SEQUENCE CHARACTE                                                                                                                              | CORRESPONDENCE ADDRESSEE: BUX ADDRESSEE: BUX STREET: P.O. B CITY: Alexandr STATE: Virgini COUNTRY: Unite COUNTRY: Unite COMPUTER READABLE MEDIUM TYPE: F COMPUTER: IBM OPERATING SYSTE SOFTWARE: Pate CURRENT APPLICATION NUM FILING DATE: 0 CLASSIFICATION TO CLASSIFICATION OF CLASSIFICATION FRIOR APPLICATION FRIOR APPLICATION CLASSIFICATION FRIOR APPLICATION FRIOR APPLICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sequence 8, Applicati Patent No. 5831030 GENERAL INFORMATION: APPLICANT: TSUJIM APPLICANT: TSURAL APPLICANT: NAKAZA APPLICANT: MIGAZA APPLICANT: MIGAZA APPLICANT: MIGAZA APPLICANT: KURIHA APPLICANT: KURIHA APPLICANT: YAMAGU APPLICANT: YAMAGU APPLICANT: YAMAGU TITLE OF INVENTION                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992 PRIOR APPLICATION DATA: APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 ATTORNEY/AGENT INFORMATION: NAME: MCGOWAN, MAICOIM K. REGISTRATION NUMBER: 39,300 REFERENCE/DOCKET NUMBER: 001560-248 TELEFOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620 TELEFAX: (703) 836-2021 FORMATION FOR SEQ ID NO: 8: SEQUENCE CHARACTERISTICS: | EQUENCES: 34  NCE ADDRESS:  BUTHS, Doane, Swecker & Mathis  P.O. Box 1404  ADBLE FORM:   Application US/08472659 5831030 17: TSUJIMOTO, Masafumi 17: TSURONCA, No. 5831030uo 17: NAKAZATO, Hiroshi 17: NAKAZATO, Hiroshi 17: NAKAZATO, Hiroshi 17: NAKAZATO, Tatsuya 17: KURIHARA, Tatsuya 17: YAMAICHI, KOZO 17: YAMAICHI, KOZO 17: YAMAICHI, KOZO 17: YAMAICHI, KOZO 18: YAMAGUCHI, NO. 5831030omi |

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Query Match
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Query Match
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                                                                                                                                         TELEFAX: (703) 836-66:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 5 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/474,661
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tent No.
                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. 5874253omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                 TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                              REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US OF THE NAME OF THE 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                             REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993
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o. 5874253
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7: United States
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                                                                                                              5 amino acids
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NAKAZATO, Hiroshi
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100.0%; Pred. No.
tive 0; Mismatch
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Score 28;
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DB 2;
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Matches 5
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                                                                                                                                                                                                                              TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 8:
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                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: KURIHAKA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, KOZO
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                SEQUENCE CHARACTERISTICS: LENGTH: 5 amino acids
                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                         NAME: McGowan, Malcolm REGISTRATION NUMBER: 39 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.30
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 1 NYEMK 5
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                                                                         Similarity
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                                                                                                                                               בא: single
linear
                                                            Conservative
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                      04-MAR-1993
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                                                                         Score 28; DB 2;
Pred. No. 1.9e+05;
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                                                                                         Length 5;
                                                            Indels
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APPLICANT:

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Best Local Similarity
Thes 5; Conserve
                                                                                RESULT 5
US-08-474-661-34
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INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TYPE: amino acid
                           Sequence 34, Application Patent No. 5874253
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,07
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APPLICATION NUMBER: JP 4-212305

FILING DATE: 17-JUL-1992
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REFERENCE/DOCKET NUMBER: 001560-248
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION: NAME: MCGOWAN, Malcolm K
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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STATE: Virginia
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                                                                                                                                               284 NYEMK 288
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5. 5831030
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                                                               Application US/08474661
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P.O. Box 1404
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5831030cmi
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NAKAZATO, Hiroshi
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TSUJIMOTO, Mas
IWASA, Fuyuki
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Pred. No.
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RESULT 6
US-08-611-977-34
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                              APPLICANT:
                                                                                                           APPLICANT:
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FILING DATE: 14-JUL-1993
APPLICATION NUMBER: UP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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ATTORNEY/AGENT INFORMATION:
NAME: REA, TERESA STANEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/474,661
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CORRESPONDENCE ADDRESS:
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PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                              APPLICANT:
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 NUMBER
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CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
TOPOLOGY: linear
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                          284 NYEMK 288
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INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR SEQUENCES: 34
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George Mason Bldg., Washington & I
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5874253omi
                          KURIHARA, Tatsuya
YAMAICHI, Kozo
YAMAGUCHI, No. 5972886omi
                                                                                          MIURA, Kenju
                                                                                                          TSUROUOKA, No. 5972886uo
NAKAZATO, Hiroshi
                                                                                                                                          TSUJIMOTO, Masafumi
IWASA, Fuyuki
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                                                                             ISHIDA, No.
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2R: 001560-204
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Pred. No.
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                            SENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                          tent No.
   ZIP: 1003b-4/1.
ZIP: 1003b-4/1.
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: FLOPSYMS-DOS/MS-DOS

""""" PC-DOS/MS-DOS

""" #1.0
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APPLICANT:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                            NUMBER OF SEQUENCES: 1:
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US 08/091,028
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                                                                                                                                                                                                               ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                          PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 380 amino acids
                                                                                                                                                                                                                              ITLE OF INVENTION:
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                                                                                              COUNTRY:
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ZIP: 22313-1404
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                                                                                                                                                                 ADDRESSEE:
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5. 5643748
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                                                                                                                               New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
GY: linear
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                                                                                                               New York
                                                                                                                                              1155 Avenue of the Americas
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                                                                                                USA
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                                                                                                                                                                                                                   Shafer, Alan W.
PENTION: Hu-B1.219, A NOVEL HEMATOPOIETIN
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                                                                                                                                                                                                                                                                                          Snodgrass, H. R.
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D. Box 1404
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Release #1.0, Version #1.30
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Pred. No.
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Best Local Similarity
Matches 4; Conserv
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                                                                                                NFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                           CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Poissant, Brian M.
                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
   MOLECULE TYPE:
                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Snodgrass, H. R.
                                                                                                TELEFAX: (414, TELEFAX: 66141 PENNIE
                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/O
FILING DATE: 14-DEC-1994
                               STRANDEDNESS:
                                                                                                                                                                            NAME: Poissant, Brian M. REGISTRATION NUMBER: 28,462 REFERENCE/DOCKET NUMBER: 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
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                                                                                                                                           TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
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1155 Avenue of the Americas
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                                                              13 amino acids
                                                                                                                                                                                                                                                                                                         PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shafer, Alan W.
VENTION: HU-B1.219, A NOVEL HUMAN HEMATOPOIETIN
VENTION: RECEPTOR
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                                                                                                                                              (212) 790-9090
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peptide
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                                                                                                                                869-9741/8864
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Pred. No. 3
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US-08-693-696-22

US-08-693-696-22

Sequence 22, Applic

Patent No. 6005080
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US-08-693-697-22
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Patent No. 5
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Best Local Similarity
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ZIP: 10036-2711
COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
Comparishe PC-DOS/MS-DOS
Comparishe PC-DOS/MS-DOS
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                                         GENERAL INFORMATION:
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TELEFAX: 650-493-5556
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 28,462
REFERENCE/DOCKET NUMBER: 890
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-493-4935
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FASTSEQ for Windows CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/693, FILLING DATE: 05-AUG-1996
                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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NAME: Poissant, Brian M.
                             APPLICANT:
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nes 4; Conserv
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                                                                                                                                   5 NYELK 9
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5869610
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                                                                  Application US/08693696
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Shafer, Alan W.
Snodgrass, H. R.
Cloffi, Joseph
Zupancic, Thomas J.
                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                unknown
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Best Local Similarity
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                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                    STREET: LA JOLIA
CITY: LA JOLIA
CTATE: CA
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                                                                                                                                                                                                            TITLE OF INVENTION:
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TELEX: 66141 PENNIE
                                                                                                      COUNTRY: UZIP: 92037
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS:
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US-08-946-329A-89
; Sequence 89, Application US/08946329A
; Patent No. 6057091
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                                                            ZIP: 92037

COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 72
TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US 08
FILING DATE: 14-DEC-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 1
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                                                                                                                                                                                                                                                                        APPLICANT: Beachy, Philip A. APPLICANT: Porter, Jeffrey A
           COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEQ for Windows Version 2.0b
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                                                                                                                                                                              E: Fish & Richardson P.C. 4225 Executive Square, Suite 1400
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1155 Avenue of the Americas
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Hu-B1.219,
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Pred. No. 3.
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3.9;
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acid
                                                             ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-855-0555
TELEFAX: 650-845-4166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 99 amino acids
TYPE: amino acid
TYPE: amino acid
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REGISTRATION NUMBER: 38,347
REGERENCE/DOCKET NUMBER: 07265/140001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                              COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: PastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 5
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CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FITLE OF INVENTION: HUMAN N-ACETYL TRANSFERASE
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                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 04-DEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 10-JU
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                                                                                                                                                                                                                                            HEREWITH
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02-DEC-1994
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                                                                                                                PF-0361 US
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Patent No. 6017744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 4; Conserv
                         Matches
                                                                                                                                                                      INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                                                                                                                                CLASCITE: DATE: US/09/1~~
                                                                                                                                                                                                        NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-855-0555
TELEFAX: 650-845-4166
                                                                                                         IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/928,443
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
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LIBRARY: GenBa
CLONE: 517485
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                                                                                   LIBRARY: GenB
CLONE: 517485
                                                                                                                         TOPOLOGY:
                                                                                                                                   STRANDEDNESS:
                                                                                                                                              TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 3174 POI
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: UZIP: 94304
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STRANDEDNESS: si
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1 NYEMK 5
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                                    Similarity
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3174 Porter Drive
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                                   Score 25;
Pred. No.
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Pred. No.
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US-08-442-282-8
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TOPOLOGY: linear
MOLECULE TYPE: peptide
US-07-757-390-8
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US-07-757-390-8
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Patent No.
GENERAL IN
                                                                                                                                                                                                                                        Sequence 8, APF--
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 89.3
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                                                        GENERAL INFORMATION:

APPLICANT: Takatsu, Kiyoshi
APPLICANT: Tominaga, Akira
APPLICANT: Takagi, Satoshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 212 790-9090
TELEFAX: 212 8698864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                            NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 212 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: M15rock, S. Leslie
REGISTRATION NUMBER: 18,8
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
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APPLICANT: Takagi, Satoshi
APPLICANT: Murata, Yoshiyuki
                                                                                                                                             TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US
FILING DATE: 19910910
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ZIP: 10036-2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                              STATE: New York COUNTRY: U.S.A.
                                                               CITY: New York
                                                                               STREET:
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                                                                                                DDRESSEE:
                                                                                                                                                                                                                                                                                                                                             251 NYELK 255
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5. 5453491
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                                                                                                                                             Nurata, roshiyuki
INVENTION: Human And Murine Interleukin-5 Receptor
                                                                                                                                                                                                                                                              Application US/08442282
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                                                                               1155 Avenue of the Americas
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                                                                                              Pennie & Edmonds
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Pred. No.
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1.3e+02;
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Search completed: July 11, 2003, 12:02:11 Job time : 1.89397 secs
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                                                                                                                                                                                                 ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-08-442-282-8
                                                                                                                                  Matches
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Best Local (
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/757,390
FILING DATE: 10-SEP-1991
ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
                                                                                                                                                                                                                                                                                                                  TELEFAX: 212 8698864/9741
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 8:
                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 16,872
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212 790-9090
TELEPAX: 212
                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 315 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Misrock, S. Leslie REGISTRATION NUMBER: 18,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                              251 NYELK 255
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                                                                                                                                                                                                                                  linear
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Pred. No. 1.3e+02;
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Maximum
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score greater than or equal to the score of the result being printed,
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length: 2000000000
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/cgn2_6/ptodata/1/pubpaa/PCT_1
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    GenCore version 5.1.6 (c) 1993 - 2003 Compus
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US-09-878-672-3

10 US-09-853-386-63

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10 US-09-853-386-65

10 US-09-853-386-70

10 US-09-853-386-70

10 US-09-864-761-42476
                                                                                                                                                  0 US-09-140-719-34
US-10-029-180-64
US-09-995-749A-12
US-10-177-293-498
                                                                                                           US-09-861-451A-36
US-09-853-386-69
US-09-878-672-2
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US-10-091-442-34
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Sequence 8, Appli
Sequence 4, Appl
Sequence 34, Appl
Sequence 34, Appl
Sequence 64, Appl
Sequence 12, Appl
Sequence 13, Appl
Sequence 36, Appl
Sequence 69, Appl
Sequence 2, Appli
Sequence 4, Appli
Sequence 63, Appl
Sequence 63, Appl
Sequence 63, Appl
Sequence 64, Appl
Sequence 65, Appl
Sequence 65, Appl
Sequence 67, Appl
Sequence 96, Appl
                                                                                                                                                                                                                                                                            Description
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| 23                | 23                | 23    | 23                 | 23                 | 23                | 23   | 23               | 23                | 23                  | 23                 | 23                | 23                  | 23                  | 23                | 24                | 24     | 24                | 24   | 24                | 24                | 24                | 24                | 24                | 24                  | 24                 |
|-------------------|-------------------|-------|--------------------|--------------------|-------------------|------|------------------|-------------------|---------------------|--------------------|-------------------|---------------------|---------------------|-------------------|-------------------|--------|-------------------|------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|--------------------|
| 82.1              | 82.1              |       | 82.1               | 82.1               |                   | 82.1 | 82.1             | Ñ                 | 82.1                | 'n                 | 82.1              | 82.1                | Ñ                   | 82.1              | 85.7              | 85.7   | 85.7              | 85.7 | 85.7              | 85.7              | 85.7              | 85.7              | 85.7              | 85.7                | 85.7               |
| 133               | 133               | 133   | 132                | 132                | 132               | 132  | 132              | 122               | 110                 | 83                 | 83                | 76                  | 67                  | 5                 | 898               | 898    | 898               | 898  | 868               | 896               | 635               | 557               | 377               | 377                 | 376                |
| 9                 | ø                 | 9     | 9                  | 9                  | 9                 | 9    | 9                | 10                | 10                  | 9                  | 9                 | ø                   | 10                  | 10                | φ                 | 9      | 9                 | 9    | 9                 | 9                 | 10                | 9                 | 10                | 10                  | 10                 |
| US-10-197-666A-74 | US-10-197-666A-72 | 9-854 | US-10-197-666A-148 | US-10-197-666A-146 | US-10-197-666A-70 | 171  | US-10-093-766-44 | 867-550-          | US-09-815-242-13253 | US-09-764-891-3348 | US-10-091-572-237 | US-10-156-761-15015 | US-09-864-761-33978 | US-09-832-312-67, | US-10-270-859-37  | 0-710- | US-10-270-786-37  | 8    | US-10-270-875-37  | US-10-210-296-5   | US-09-841-132-520 | US-10-081-872-206 | -09-815-242       | US-09-815-242-12700 | US-09-815-242-5669 |
| 74,               | ~                 | •     | Sequence 148, App  | •                  | Sequence 70, Appl |      | 44, App          | Sequence 1862, Ap | Sequence 13253, A   | `<br>>             | Sequence 237, App | Sequence 15015, A   | Sequence 33978, A   | Sequence 67, Appl | Sequence 37, Appl | 37,    | Sequence 37, Appl | 37,  | Sequence 37, Appl | Sequence 5, Appli | Sequence 520, App | Sequence 206, App | Sequence 12726, A | Sequence 12700, A   | Sequence 5669, Ap  |

## ALIGNMENTS

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NESULT 1

US-10-091-442-8

Sequence 8. Application US/10091442

Patent No. US20020164711A1

IWASA, FUYUK!

PATENTION:

MEASA, FUYUK!

SUBPRICANT: TSUJIMOTO, Masafumi

IFIDEN NO. US20020164711A1uhiro

NAKAZATO, HITOShi

MIURA, Kenju

ISHIDA, No. US20020164711A1uhiro

KURHHARA, Tatsuya

YAMAICHI, No. US20020164711A1omi

TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR

NUMBER OF SEQUENCES: 34

CORRESPONDENCE ADDRESS:

ADDRESSE: Burns, Doane, Swecker 6 Mathis

STREET: P.O. Box 1404

CITY: Alexandria

STATE: Virginia

STATE: Virginia

STATE: Virginia

STATE: PORM:

MEDIUM TYPE: Floppy disk

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION NUMBER: US/10/091,442

FILING DATE: 07-Mar-2002

CLASSIFICATION NUMBER: US 08/091,028

FILING DATE: 10-JUN-1993

APPLICATION NUMBER: US 08/091,028

FILING DATE: 11-JUL-1993

APPLICATION NUMBER: US 08/091,028

FILING DATE: 11-JUL-1993

APPLICATION NUMBER: UF 08/091,028
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (703) 836-2
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tent No.
                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 01
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
ATTORNEY/AGENT INFORMATION: NAME: McGowan, Malcolm K
                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 08-AUG CLASSIFICATION:
                                                                          APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
                                                                                                                     APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
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TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 8:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION:
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                       Virginia
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ISHIDA, No. US20010026931Aluhiro
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NAKAZATO, Hiroshi
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YAMAGUCHI, NO. US20010026931A1omi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KURIHARA, Tatsuya
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                                                                                          JP 4-212305
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Pred. No.
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                                                                                                                                                                                                                                                                             Version #1.30
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4e+05;
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                                                                                                                                                                               Sequence 34, Application US/10091442 Patent No. US20020164711A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Patent.pm
SEQ ID NO 445
LENGTH: 163
                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local S
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PRIOR APPLICATION NUMBER: US 60/187,470
PRIOR FILING DATE: 2000-03-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/731,872
CURRENT FILING DATE: 2000-12-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Jobert, Severin
TITLE OF INVENTION: FULL-LENGTH HUMAN CONAS ENCODING POTENTIALLY SECRETED PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/169,629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: 78.US3.REG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Dumas Milne Edwards, Jean Baptiste
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                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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LENGTH: 5 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER:
            KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. US20020164711A1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                         159 NYEMK 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    445, Application US/09731872
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5; Conserv
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                                                                                                                                                                 TSUJIMOTO, Masafumi
                                                                                      ISHIDA, No. US20020164711Aluhiro
                                                                                                   MIURA, Kenju
                                                                                                                      TSUROUOKA, No. US20020164711Aluo
NAKAZATO, Hiroshi
                                                                                                                                                 IWASA, Fuyuki
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ADDRESS:
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Pred. No. 4e+05;
                                                                                                                                                                                                                                                                                                                                                   Mismatches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                 Patent No. US2001
                                                                                                                                                                                                                                                                                                                     ENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: MCGOWAN, MAICOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: protein SEQUENCE DESCRIPTION: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  284 NYEMK 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-MAT-2002
CLASSIFICATION: - Unknown>
IOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1993
APPLICATION NUMBER: JP 6-067339
FILING DATE: 17-JUL-1993
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
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                                     Alexandria
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                                                                                                                                                                                                                                                                                                                                                      Application US/09140719
                                                  2: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                         TSUROUCKA, No. US20010026931A1uo
United States
                                                                                                                                                                                                                                           NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                              SUJIMOTO, Masafumi
                                                                                                                                                                                                    No. US20010026931A1uhiro
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                                                                                                                                                                               Tatsuya
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836-2021
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                                                                                   TITLE OF INVENTION: NO. US20020182708A1el Regulators of Fungal Gene Expression FILE REFERENCE: MIC-004
CURRENT APPLICATION NUMBER: US/10/029,180
CURRENT FILING DATE: 2001-12-22
PRIOR APPLICATION NUMBER: US 60/257,431
PRIOR FILING DATE: 2000-12-22
NUMBER OF SEQ ID NOS: 138
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 64
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INFORMATION FOR SEQ
                             LENGTH: 399
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                    APPLICANT:
FEATURE: OTHER INFORMATION: fungal gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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LENGTH: 380 amino acids
TYPE: amino acid
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 39,300
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Milna, G. Todd
Sherman, Amir
                                                                                                                                                                                                                                              Silva, Jeffry C.
Trueheart, Josh
Zhang, Lixin
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                                                                                                                                                                                                                                                                                                                                                                          Brian M.
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Mismatches
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Best Local
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FRIOR APPLICATION NUMBER: 09/604,957
PRIOR FILING DATE: 2000-06-28
PRIOR FILING DATE: 2000-05-25
PRIOR APPLICATION NUMBER: EPO 00201871.1
PRIOR FILING DATE: 2000-05-25
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CURRENT APPLICATION NUMBER: US/10/177,293
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APPLICANT: Glatt, Karen
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                             FILE REFERENCE: MRI-038
                                                                                                    APPLICANT:
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                                      ITLE OF INVENTION: COMPOSITIONS, KITS, AND METHODS FOR IDENTIFICATION, ASSESSMENT, TILE OF INVENTION: PREVENTION, AND THERAPY OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 584
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nes 5; Conserv
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5; Conserv
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Meyers, Rachel E.
Bast Jr., Robert C.
Hortobagyi, Gabriel N
                                                                     Sahin, Aysegul
Mills, Gordon B.
                                                                                                                                                                                                                                                 Gannavarpu, Manjula
Kamatkar, Shubhangi
Mertens, Maureen
                                                                                                   Meric, Funda
                                                                                                                  Pusztai, Lajos
                                                                                                                                                                                                                                       Myer,
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                                                                                                                                                                                                                                                                                                  Zhao, Xumei
                                                                                                                                                                             Hoersch, Sebastian
Monahan, John
                                                                                                                                                                                                                       Wang, Youzhen
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Pred. No.
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Query Match
Best Local Similarity
Matches 5; Conserve
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US-09-853-386-69
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         GENERAL INFORMATION:
APPLICANT: Murphy, Evelyn
APPLICANT: Bresnihan, Barry
APPLICANT: Conneely, Orla
APPLICANT: Fitzgerald, Oliver
APPLICANT: Fitzgerald, Oliver
TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the NURR
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
                                                                                                                                               Sequence 69, Application US/09853386 Patent No. US20020049151A1
                                                                                                                                                                                                                                                                                                                                                                         Query Match
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SEQ ID NO 36
LENGTH: 299
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SEQ ID NO 498
                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Commonwealth Scientific & Industrial Research TITLE OF INVENTION: Methods of Identifying Antigen Gene S FILE REFERENCE: FF34033/01 CURRENT APPLICATION NUMBER: US/09/861,451A CURRENT FILING DATE: 2001-05-21
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PRIOR FILING DATE: 1998-11-20
NUMBER OF SEQ ID NOS: 84
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PRIOR FILING DATE: 2001-06-21
FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:Deduced
OTHER INFORMATION: sequence from clone pAD784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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Pred. No.
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US-09-853-386-69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn version 3.1
SEQ ID NO 69
LENGTH: 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2, Application US/09878672 publication No. US20030049812A1 GENERAL INFORMATION:
                                                                                   Best
                                                                                               Query Match
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PRIOR FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
                                                                                                                                                                                                                               TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                          ATTORNEY AGENT INFORMATION:
NAME: DICKINSON, Todd 0
REGISTRATION NUMBER: 28,354
REFERENCE/DOCKET NUMBER: GM10022-1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-994-2252
                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/878,672
FILING DATE: 11-Jun-2001
CLASSIFICATION: UNknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 19103
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESSE: Dechert Price & Rhoads
STREET: 4000 Bell Atlantic Tower, 1717 Arch Stre
CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Wallis, Nicola G. TITLE OF INVENTION: NOVEL histidine kinase
                                                                                                                                                SEQUENCE DESCRIPTION: SEQ ID
529 NYQMK 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 NYELK 72
                                1 NYEMK 5
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                                                                                 Similarity
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OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/916,481 FILING DATE: <Unknown>
                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: PA
                                                                                                                                                                                                                                                                                  TELEFAX: 215-994-2222
                                                                                                                                                                                                                LENGTH: 554 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                Score 25; DB 9;
Pred. No. 6.2e+02;
1; Mismatches 0
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Pred. No. 5e+02;
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US-09-878-672-3
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US-09-800-396-4
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                                                                                                                                                                                                                                                                               Sequence 3, Application US/09878672 Publication No. US20030049812A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local
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TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                               GENERAL INFORMATION
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OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/800,396
FILING DATE: 06-Mar-2001
CLASSIFICATION: <Unknown>
                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: BIOOM, Allen
REGISTRATION NUMBER: 29,135
REFERENCE/DOCKET NUMBER: GM.
TELECOMMUNICATION INFORMATION:
TELEPHONE: 609-520-3214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/879,531
FILING DATE: <Unknown>
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MEDIUM TYPE: Diskette
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ADDRESSEE: Dechert Price
STREET: 997 Lenox Drive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION: NOVEL RESPONSE REGULATOR
NUMBER OF SEQUENCES: 6
                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                     APPLICANT: Wallis, Nicola G.
TITLE OF INVENTION: NOVEL histidine kinase
NUMBER OF SEQUENCES: 7
                                                                                                                                                                                                                                                                                                                                                                                              529 NYQMK 533
                                                                                                                                                                                                                                                                                                                                                                                                                                 1 NYEMK 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                           STREET: 4000 Bell CITY: Philadelphia STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
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ZIP: 08543
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COMPUTER: IBM Compatible OPERATING SYSTEM: DOS
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                                                                        ZIP: 19103
                                                                                         COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 554 amino acids
                                                                                                                                                  ADDRESSEE: Dechert Price & Rhoads STREET: 4000 Bell Atlantic Tower,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.3%;
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Pred. No. 6.2e+02;
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Building 3,
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RESULT 15
US-09-833-386-64
; Sequence 64, Application US/09853386
; Patent No. US20020049151A1
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 1
SOFTWARE: PatentIn vers
SEQ ID NO 63
LENGTH: 625
TYPE: PRT
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Best Local Similarity
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APPLICANT: Bresnihan, Barr
APPLICANT: Conneely, Orla
                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
PRIOR APPLICATION NUMBER: US 60/203645
PRIOR FILING DATE: 2000-05-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the NURR TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors FILE REFERENCE: P01972US1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Fitzgerald, Oliver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 563 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Dickinson, Todd Q
REGISTRATION NUMBER: 28,354
REFERENCE/DOCKET NUMBER: GM10022-1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-994-2252
TELEFAX: 215-994-2222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/878,672
FILING DATE: 11-Jun-2001
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
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                                                                                                                                       68 NYELK 72
                                                                                                                                                                         1 NYEMK 5
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                                                                                                                                                                                                                                                                                                                                                                            version 3.1
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Pred. No. 6.
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Pred. No. 6.3e+02;
1; Mismatches 0
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es 0;
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APPLICANT: Murphy, Evelyn

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FILE REFERENCE: P01972US1
CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
PRIOR APPLICATION NUMBER: US 60/203645
PRIOR FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
SOFTWARE: Patentin version 3.1
SEQ ID NO 64
LENGTH: 626
TYPE: PRT
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                                                                                                               Query Match
Best Local Similarity
Watches 4; Conserve
Search completed: July 11, Job time: 1.4657 secs
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                                                                                                                                                                                             ; ORGANISM: HUMAN US-09-853-386-64
                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Fitzgerald, Oliver
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
                                                               68 NYELK 72
                                                                                              1 NYEMK 5
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Conneely, Orla
                                                                                                                              Conservative
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Pred. No. 6.9e+02;
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Result
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Maximum Match 100%
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  score
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Match
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476.708 million cell updates/sec
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hydrogenase matura
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ARDI N-acetyl tran
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gene MHC DQ-alpha
gene MHC DQ-alpha
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hypothetical prote
probable LPS biosy
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capsid protein 26
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## ALIGNMENTS

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R;Johnson, P.R.; Collins, P.L.
J. Gen. Virol. 70, 1539-1547, 1989
A;Title: The 1B (NS2), 1C (NS1) and N proteins of human
A;Reference number: A32063; MUID:89279331; PMID:2525176
A;Accession: B32063.
                                                                                                                                                                                                                                        nonstructural protein 1B - human respiratory syncytial virus (strain 18537) N;Alternate names: nonstructural protein NS2 C;Species: human respiratory syncytial virus C;Date: 31-Mar_1992 #sequence_revision 31-Mar-1992 #text_change 16-Jun-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Collins, P.L.; Wertz, G.W.
virology 143, 442-451, 1985
A;Title: Nucleotide sequences of the 1B and
A;Reference number; A94336; MUID:86045905; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nonstructural protein 1B - human respiratory syncytial virus C;Species: human respiratory syncytial virus C;Decies: human respiratory syncytial virus C;Date: 30-Jun-1987 #sequence_revision 30-Jun-1987 #text_change 16-Jul-1999 C;Accession: B94336; C93010; A04032
A;Molecule.type: mRNA
A;Residues: 1-124 <JOH>
A;Cross-references: EMBL:D00736; NID:g222559; PIDN:BAA00636.1; PID:g222561
                                                                                                                                                                                                                                                                                                                                                   RESULT
MNN215
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1.1; PID:9333927
1.1; PID:9333927
1.1; PID:9333927
1.2; Satake, M.; Venkatesan, S.
1.2; Virol. 55, 101-110, 1985
1.3; PIL: mRNA sequence of three respiratory syncytial virus genes encoding two nonstrap; Reference number: A93010; MUID:85237684; PMID:4009789
1.3; Accession: C93010
1.3; PID:9333927
1.4; Satake, M.; Venkatesan, S.
                                                                                                                                                                                                                     C; Accession: B32063
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A; Residues: 1-54, 'R', 56-124 <ELA>
A; Cross-references: GB:M11486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: genomic RNA
A; Residues: 1-124 <COL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Superfamily: respiratory syncytial virus nonstructural protein; Keywords: nonstructural protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genetics:
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Best Local
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Pred. No.
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Mismatches
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PMID:2998021
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RESULT 5
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A; Gene:
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.; Speciles: Clostridium acetobutylicum
C.Date: 14-Sep-2001 #sequence_revision 14-Sep-2001 #text_change 14-Sep-2001
C:Accession: D97235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 3
A49166
3',5'-cyclic-AMP phosphodiesterase (EC 3.1.4.-), cyclic-GMP inh
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 03-Feb-1994 #sequence_revision 03-Feb-1994 #text_change
C;Accession: A49166
R;LeBon, T.R.; Kasuya, J.; Paxton, R.J.; Belfrage, P.; Hockman,
Endocrinology 130, 3265-3274, 1992
A;Title: Purification and characterization of guanosine 3',5'-
A;Reference number: A49166; MUID:92283180; PMID:1317779
A;Accession: A49166
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A;Gene: 1B
C;Superfamily: respiratory syncytial virus nonstructural protein
C;Keywords: nonstructural protein
                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-330 < KUR>
                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A96900; A; Accession: D97235
                                                                                                                                                                                                                                                                                                                                                                                         A; Title: Genome Sequence and Comparative Analysis of the Solvent-Producing Bacterium A; Reference number: A96900; MUID:21359325; PMID:21359325
                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.; Dalv. M.J.: Bennett, G.N.; Koonin, E.V.; Smith, D.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: protein A; Residues: 1-128 < LEB>
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   hypothetical protein F53E10.
C;Species: Caenorhabditis el
                                                                                                                                                                                                                                                                                    A; Cross-references: GB: AE001437; PIDN: AAK80671.1; A; Experimental source: Clostridium acetobutylicum
                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Keywords: cGMP binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Status: preliminary
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Best Local 9
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Best Local :
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Keywords: cGMP binding; phosphoric diester hydrolase
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Best Local
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5; Conserv
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                    Caenorhabditis elegans
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ATCC824
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                                                                                                                                                                                                          cytochrome P450 homolog F23K16.120 - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 16-Feb-2001 C;Accession: T09365
 A; Map position:
C; Superfamily:
                                                                                                       A; Molecule type:
A; Residues: 1-47
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                                   A; Gene: ATSP: F23K16.120
                                                                      A; Experimental source: cultivar
                                                                                                                                                                             submitted to the Protein
                                                                                                                                                                                           R; Bevan, M.; Murphy, G.; Ridley, P.; Hudson,
                                                                                                                                                                                                                                                                                                      RESULT
Superfamily:
                                                                                        Cross-references:
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1-479 <BEV>

EMBL: AL078620;

Columbia;

BAC clone

GSPDB:GN00062; ATSP:F23K16.120

DNA

otein Sequence Database, 216652

s:

Bancroft, 1999

I.; Mewes,

H.W.; Mayer,

Candida cytochrome P450 52A3;

cytochrome P450 homology

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C;Species: Clostridium acetobutylicum
C;Date: 14-Sep-2001 #sequence_revision 14-Sep-2001 #text_change 14-Sep-2001
C;Accession: B97276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 15-Oct-1999 #sequence_revision 15-Oct-199 (;Accession: T25790 R;Beck, C.; Wamsley, P. submitted to the EMBL Data Library, February 1997 A;Description: The sequence of C. elegans cosmid
                                                                                                                                                                                                                                                                 A; Title: Genome Sequence and Comparative Analysis of the A; Reference number: A96900; MUID:21359325; PMID:21359325
                                                                                                                                                                                                                                                                                                R;Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.; Daly, M.J.; Bennett, G.N.; Koonin, E.V.; Smith, D.R. J. Bacteriol. 183, 4823-4838, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: DNA
A; Residues: 1-358 <BEC>
                                                                                                                                A; Gene:
                                                                                                                                                                                                                                               A; Accession: B97276
                                                                                                                                                                                                                                                                                                                                                                                                 glycosyltransferase [imported] - Clostridium acetobutylicum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Introns: 23/3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: CESP:F53E10.5
A;Map position: 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Accession: T25790
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Cross-references:
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                                                                              Query Match
Best Local
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Best Local
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191 NYEMK 195
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                                                            l Similarity
5; Conserv
                               1 NYEMK 5
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5; Conserv
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                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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be: strain Bristol N2; clone F53E10
                                                                            100.0%;
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                                                                              Score
Pred.
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Pred. No.
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                                                                            28;
                                                                              36;
                                                                                               DВ
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                                                                                                                                                               PID:g15026118;
ATCC824
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                                                                                               Length 420
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RESULT 8
$4993
$4993
Nypothetical protein YIL045w - yeast (Saccharomyces cerevisiae)
Nypothetical protein yi9905.03
NyAlternate names: hypothetical protein yi9905.03
C:Species: Saccharomyces cerevisiae
C:Species: Saccharomyces cerevisiae
C:Date: 13-Jan-1995 #sequence_revisiae
C:Date: 13-Jan-1995 #sequence_revision 20-Feb-1995 #text_change 06-Feb-1998
C:Accession: $49933
R:Odell, C:: Bowman, S.
submitted to the EMBL Data Library, December 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
T18445
                           RESULT 10
T14277
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R:Lawson, D.; Bowman, S.; Barrell, submitted to the EMBL Data Library A:Reference number: 218935
A:Accession: T18445
                                                                                                                                                                                                                                                                                                                                                                                                    hypothetical protein C0420w - malaria parasite (Plasmodium falciparum)
C;Species: Plasmodium falciparum
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 11-Jan-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Map position: 9L
C:Superfamily: glucoamylase starch-binding domain
F;396-516/Domain: glucoamylase starch-binding doma
myosin-like
N;Alternate
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A; Map position: 9L
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A; Introns: 326/3;
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A; Cross-references: EMB
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A; Residues: 1-538 <ODE>
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protein my3 - common sunflower names: unconventional myosin
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5; Conser
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5; Conserv
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Pred. No.
                                                                                                                                                Score 28; DE Pred. No. 53; Mismatches
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Pred. No.
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C;Accession: I*
C;Accession: I*
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I36921
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C;Date: 20-Sep:1999 #sequence_revision 20-Sep-1999 #text_change 23-Mar-2001
C;Accession: T14277
                                                                                                                                          R;Kenter, M.; Otting, N.; Anholts, J.; Leunissen, J.A.M.; Jonker, M.; Bontrop, R.E. Immunogenetics 36, 71-78, 1992
                                                                                                                                                                                               gene MHC DQ-alpha 1 protein - hamadryas baboon (fragment)
C;Species: Papio hamadryas (hamadryas baboon)
C;Date: 07-Jun-1996 #sequence_revision 07-Jun-1996 #text_
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C;Superfamily: varicella-zoster virus 240K tegument protein
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A; Accession: T41933
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A; Residues: 1-900 < VUG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   submitted to the EMBL Data Library, A:Description: Molecular cloning of
A;Cross-references: GB:M76226; NID:g176597; PIDN:AAA35391.1; PID:g176598 C;Superfamily: class II histocompatibility antigen; immunoglobulin homolo
                                     A; Molecule type: DNA
A; Residues: 1-62 < RES>
                                                                                        A; Reference number: A; Accession: I36921
                                                                                                          A; Title: Evolutionary relationships among A; Reference number: I36899; MUID:92307745;
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                                                                       A; Status: preliminary; translated
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ce: strain JI
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Pred.
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a new mini myosin
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                                                                                                          the primate MHC-DQA1 and PMID:1612647
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rfal protein - Salmonella typhimurium C;Species: Salmonella typhimurium C;Species: Salmonella typhimurium C;Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 08-Oct-1999 C;Accession: S12097 R;Carstenius, P.; Flock, J.I.; Lindberg, A. Nucleic Acids Res. 18, 6128, 1990 Nucleic Acids Res. 18, 6128, 1990 A;Title: Nucleotide sequence of rfal and rfal genes encoding lipopolysaccharide glycosyl A;Reference number: S12097; MUID:91045080; PMID:2235496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
$40739
hypothetical protein ZK507.5 - Caenorhabditis elegans
C:Species: Caenorhabditis elegans
C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Sep-1997
C:Accession: $40739
R:Hawkins, T.; Thomas, K.
submitted to the EMBL Data Library, December 1993
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A; Residues: 1-75 <HAW>
A; Cross-references: EMI
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Reference number: S40735
A;Accession: S40739
A;Status: preliminary
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A; Residues: 1-62 <RES>
A; Cross-references: GB.M76229; NID:g342161; PIDN:AAA36870.1; PID:g342162
C; Superfamily: class II histocompatibility antigen; immunoglobulin homole
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene MHC DQ-alpha 1 protein - rhesus macaque (fragment)
C;Species: Macaca mulatta (rhesus macaque)
C;Date: 07-Jun-1996 #sequence_revision 07-Jun-1996 #text_change 23-Jul-1999
C;Accession: I61802
A;Status: preliminary
                     A; Reference number: A; Accession: S12097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Title: Evolutionary relationships among the primate MHC-DQA1 and DQA2 alleles. A;Reference number: I36899; MUID:92307745; PMID:1612647 A;Accession: I61802
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Kenter, M.; Otting, N.; Anholts, J.; Leunissen, J.A.M.; Jonker, M.; Bontrop, Immunogenetics 36, 71-78, 1992
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Best Local :
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Pred. No. 28;
1; Mismatches
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                                                                                                A; Molecule type: DNA
A; Residues: 1-133 <CAR>
                                                                                     A;Cross-references: EMBL:X53847; NID:g47882; PIDN:CAA37841.1; PID:g47883
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41 NYELK 45
                      1 NYEMK 5
                                         Similarity 4; Conserv
                                          Conservative
                                                     89.3%;
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                                                    Score 25;
Pred. No.
                                            Mismatches
                                                     DB 2;
62;
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Search completed: July 11, 2003, 12:00:42 Job time: 2.10832 secs

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Maximum Match 100%
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Perfect score:
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           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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                        VNS2_BRSVA
VNS2_HRSVB
HUMAN
VNSCA_RROFE
PAIZ_ROFE
SCHPD_ACEKI
VLB6_FEAST
CYA2_HUMAN
VSCA_RICPR
CYA2_ROFE

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P04543 human respi
042038 human respi
085305 human respi
085305 human sapien
075635 homo sapien
075635 homo sapien
075636 mus musculu
P52362 human herpe
09x525 lactobacill
045251 bradyrhizob
P36416 dictyostell
P41297 homo sapien
P19816 salmonella
P53298 saccharomyc
P41297 homo sapien
P53298 rattus norv
P3754 rattus norv
P3756 bacillus su
092570 homo sapien
P75234 mycoplasma
067012 aquifex aeo
P22258 acetogenium
006708 saccharomyc
008462 homo sapien
P36769 rattus norv
P16419 gallus gall
010178 schizosacch
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P24569 human ı
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human respi
human respi
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VNS2_BRSVA
ID VNS2_BRSVA
C 065695;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Last annotation update)
DE Nonstructural protein 2 (Nonstructural protein 1B).
GN 1B OR NS2.
OS Bovine respiratory syncytial ...
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| 45         | 44         | 4.        | 42                 | 41        | 40        | 39                 | 38         | 37                                            | 36         | 35                 | 34                 |
|------------|------------|-----------|--------------------|-----------|-----------|--------------------|------------|-----------------------------------------------|------------|--------------------|--------------------|
| 24         | 24         | 24        | 24                 | 24        | 24        | 24                 | 24         | 24                                            | 24         | 24                 | 24                 |
| 85.7       | 85.7       | 85.7      | 85.7               | 85.7      | 85.7      | 85.7               | 85.7       | 85.7                                          | 85.7       | 85.7               | 85.7               |
| 274        | 268        | 259       | 256                | 253       | 252       | 252                | 246        | 182                                           | 178        | 157                | 113                |
| <b>-</b>   | ۲          | _         | _                  | _         | Ľ         | 1                  | ۲          | <u>, , , , , , , , , , , , , , , , , , , </u> | _          | ب                  | _                  |
| AROK_PYRAB | PLSC_MYCGE | UDP_HAEIN | Y165_METJA         | UDP_KLEAE | UDP_SALTY | UDP_ECOLI          | Y181_METJA | PGRP_MOUSE                                    | AR21_HUMAN | GYRI_ECOLI         | RL22_BACHD         |
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| 01-MAR-1992 (Rel. 21, Created) 01-MAR-1992 (Rel. 21, Last sequence update) 01-MAR-1992 (Rel. 21, Last sequence update) 01-MAR-1992 (Rel. 21, Last annotation update) Nonstructural protein 2 (Nonstructural protein 1B). Non NS2. 1B OR NS2. Human respiratory syncytial virus (subgroup B / strain 18537). Viruses; ssrNA negative-strand viruses; Mononegavirales; Paramyxoviridae; Pneumovirinae; Pneumovirus. | 1 5         | EMBL; U15938; AAA85672.1; Interpro; IPR004336; RSV_NS2. Pfam; PF03113; RSV_NS2; 1. Nonstructural protein. Nonstructural protein. SEQUENCE 124 AA; 14576 MW; B47548B0D5FB8FFD CRC64; SUBSTRACT REPORT REPOR | T entry is copyright wiss Institute of Bi toinformatics Institutions rofit institutions his statement is not res a license@isb-si | UENCE FROM N.A.  LINE-95146950; PubMed-7844532;  tey M.K., Samal S.K.;  clectide sequence analysis of  ) protein genes of bovine resp  Gen. Virol. 76:193-197(1995). | Bovine respiratory syncytial virus (strain A51908) (BRS). Viruses; ssRNA negative-strand viruses; Mononegavirales; Paramyxoviridae; Pneumovirinae; Pneumovirus. NCBI_TaxID=11247; |

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MEDLINE-97187925; PubMed-9035372; Crowe J.E. Jr., Firestone C.Y., W
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Elango N., Satake M., Venkatesan S.;
"mRNA sequence of three respiratory syncytial virus genes encoding
two nonstructural proteins and a 22K structural protein.";
T. Virol. 55:101-110(1985).
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virus (RSV) of antigenic subgroups A and B: sequence conservation and
divergence within RSV genomic RNA.";
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                                                                                                                              MEDLINE-95266253; PubMed-7747420; Connors M., Crowe J.E. Jr., Firestone C.Y., Murphy B.R., "A cold-passaged, attenuated strain of human respiratory virus contains mutations in the F and L genes."; Virology 208:478-484(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Collins P.L., Wertz G.W.;
"Nucleotide sequences of the 1B and 1C human respiratory syncytial virus.";
Virology 143:442-451(1985).
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Viruses; ssRNA negative-strand viruses; Mononegavirales;
Paramyxoviridae; Pneumovirinae; Pneumovirus.
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Nonstructural protein.
SEQUENCE 124 AA; 14624
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                                                                                                                                                                                use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fc entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
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Nonstructural protein. SEQUENCE 124 AA; 14
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Similarity 5; Conser

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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                             Alansari H.M., Potgieter L.N.D.;

"Nucleotide and predicted amino acid sequence respiratory syncytial virus non-structural IC small hydrophobic protein gene.";

J. Gen. Virol. 75:401-404(1994).
                                                                                                                                                                                                                                          Ovine respiratory syncytial virus (strain WSU 83-1578) (Viruses; SSRNA negative-strand viruses; Mononegavirales; Paramyxoviridae; Pneumovirinae; Pneumovirus.
                                                                                                                                                                                                                                                                                                                                                                                                           ORSVW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U35029; AAA79090.1; -. InterPro; IPR004336; RSV_NS2. Pfam; PF03113; RSV_NS2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                         15-JUL-1998 (Rel. 36, Created).
15-JUL-1998 (Rel. 36, Last sequ
15-DEC-1998 (Rel. 37, Last anno
Nonstructural protein 2 (Nonstr
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Q65707;
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MEDLING-97326116; PubMed-9182567;

MEDLING-97326116; PubMed-9182567;

Tsujimoto M., Tsuruoka N., Ishida N., Kurihara T., Iwasa F.,

Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M.,

Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M., Mizama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Mizoguchi H., Yamaguchi N.;

Nakanishi T., Nakazato H., Teramura M., Mizoguchi H., Yamaguchi N.;

"Purification, cDNA cloning, and characterization of a new serpin w megakaryocyte maturation activity.";

J. Biol. Chem. 272:15373-15380(1997).
                                                                                      EMBL;
                                                                                                                                                             the European Bioinformatics Institute. The use by non-profit institutions as long a modified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                            IgA nephropathy.";
J. Clin. Invest. 1
                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
TISSUE-Mesangial cells;
MEDLINE-98376492; PubMed-9710452;
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15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
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                                                                                                                                  or send
                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                    -!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-!- TISSUE SPECIFICITY: Predominantly expressed in mesangial cells
-!- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                         Miyata T., Nangaku M., Suzuki D., Okubo K., Kurokawa K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
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                                                                                                                                                   entities requires a
                                                                                                                                                                                                                                                                                                                                                                          "A mesangium-predominant gene, megsin,
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                                                                          HSSP; P05619;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID-9606
                                                                                                                                                                                                                                                                                              Clin. Invest. 102:828-836(1998).
FUNCTION: Might function as an
proteases. Might influence the
its action as a scrpin.
                                                                                      D88575; BAA31232.1; AF027866; AAC64506.
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                                                         P05619; 1HLE.
HGNC:13902;
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an email to license@isb-sib.ch).
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Pred. No. 6
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InterPro; IPR000215; Serpin
Pfam; PF00079; Serpin; 1.
SMART; SM00093; SERPIN; 1.

Genew;

SERPINB7

603357;

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RESULT 8
PIG2_YEAST
ID PIG2_Y
AC P40187
DT 01-FEB
DT 01-
RESULT 9
VAV3_HUMAN
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Serpin; S
ACT_SITE
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Barrell B.G., Badcock K., Bankier A.T., Bowman S., Brown D.,
Churcher C.M., Connor R., Copsey T., Dear S., Devlin K., Fraser
Gentles S., Hamlyn N., Horsnell T.S., Hunt S., Jagels K., Jones
Louis E., Lye G., Moule S., Moule T., Odell C., Pearson D.,
Rajandream M.A., Riles L., Rowley N., Skelton J., Smith V.,
Walsh S.V., Whitehead S.;
Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence up
01-NOV-1997 (Rel. 35, Last annotation
GSV2 interacting protein PIG2.
                                                                                                                                                                                                                                                                                                                                                                                          modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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Pro; IPR005036; CBM_21.
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PIG genes: PIG1 encodes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Serine
                                                                                      NYEMK 529
                                                                                                                                 NYEMK 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS00284; SERPIN;
                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380 AA;
                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ne protease inhibitor
347 348 REACT
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                                                                                                                                                                                                                                                                                  CBM_21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                61938 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42904 MW;
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                                                                                                                                                                     Score 28; DB
Pred. No. 28;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 28; DB
Pred. No. 19;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REACTIVE BOND
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glycogen synthase Gsy2p.";
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                                                                                                                                                                                                                                                             73ED8F5CC6692172 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9A2CDB6C63CFF605
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            538
                                                                                                                                                                                                                                                                                                                                                                                                                   (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SYNTHASE 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      update)
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19;
                                                                                                                                                                                                28;
                                                                                                                                                                                                                  DB
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                                                                                                                                                                                                                Length 538;
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-!- SIMILARITY: CONTAINS 1
BINDING DOMAIN.
                                                                                                                                               InterPro;
InterPro;
InterPro;
                                                                                                                                                                                  InterPro;
InterPro;
InterPro;
                                                                                                                                                                                                                                                                                                                                           between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as last scontent is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
           ProDom;
ProDom;
                                                                                                Pfam;
Pfam;
                                                                                                                                  Pfam;
                                                                                                                                                                                                                                                                                    EMBL;
EMBL;
HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Breast, and Colon carcinoma;
MEDLINE-98371222; PubMed-9705494;
Trenkle T., Welsh J., Jung B., Mathieu-Daude F
"Non-stoichiometric reduced complexity probes
Nucleic Acids Res. 26:3883-3891(1998).
-I- FUNCTION: EXCHANGE FACTOR FOR GTP-BINDING
TO A LESSER EXTENT, RAC-1. BINDS PHYSICALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             O9UKW4; O95230; O9Y5X8;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
                                                                                                                        Pfam;
                                                                                                                                                                                                                                                            Genew; HGNC:12659; VAV3.
MIM; 605541; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vav family of oncoproteins. Mol. Cell. Biol. 19:7870-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., AND ALTERNATIVE MEDLINE-99455043; PubMed-10523675;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                       InterPro;
                                                                                                                                                                                                                                    InterPro;
                                                                                                                                                                                                                                              InterPro;
                                                                                                                                                                                                                                                                                                                         EMBL;
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-!- SIMILARITY: CONTAINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Biological and regulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Movilla N., Bustelo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VAV3_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATES OF THOSE GTPASES.
ALTERNATIVE PRODUCTS: 2 ISOFORMS; ALPHA
ARE PRODUCED BY ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                      SWISS-PROT entry is
                                                                       PF00307;
PF00621;
                                                                                                                                                                                                                                                                                  AF118887; AAD20349.1; -. AF118886; AAD20348.1; -. AF067817; AAC79695.1; -. P29355; ISEM.
                                                                                             PF00017; SH2; 1.
PF00018; SH3; 1.
PF00130; DAG_PE-bind;
PF00169; PH; 1.
                                               PR00401; SH2DOMAIN. PR00452; SH3DOMAIN.
                                     PR00888; SM22CALPONIN
                                                                                                                                                                                                         IPR003247; CH_type.
IPR001715; Calponin-like.
IPR002219; DAG_PE-bind.
IPR001331; GDS_CDC24.
                                                                                                                                                 IPR003096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eutheria;
                                                                                                                                                                         IPR000980;
                                                                       CH; 1.
RhoGEF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19:7870-7885(1999).
CH_type; 1.
                       SH3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata;
Primates;
                                                                                                                                                                      SH2.
                                                                                                                                                            SH3
                                                                                                                                                                                     RhoGEF.
                                                                                                                                               SM22_calponin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S 1 CALPONIN-HOMOLOGY
S 1 DBL-HOMOLOGY (DH)
S 1 PH DOMAIN.
S 1 ZINC-DEPENDENT PHO
                                                                                                                                                                                                                                                                                                                                                                                                           copyright. It is produced through tute of Bioinformatics and the EN
                                                                                                                                                                                                                                                                                                                                                                                                                                               2 1
                                                                                                                                                                                                                                                                                                                                                                                                                                               SH2 DOMAIN.
SH3 DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  properties
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Ve Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SPLICING
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of Vav-3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PHORBOL-ESTER AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SHOWN HERE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F., McClelland
s for cDNA array
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CH) DOMAIN DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D
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VAV3_WOV3_

ID VAV03_

ID VAV03_

ID VAV03_

AC Q9R0C

Q9R0C

D7 16-0C

D7 15-JU

DE Vav-3

GN VAV3.

GN Wus m

GC Eukar

GC Wanna

GN NCBL

RN [1]

RN SEQUE

RN MEDULE

RA Trenk

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CC -1- E

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Best Local S
Matches S
                           SEQUENCE FROM N.A.

**MEDLINE=2017963; PubMed=10713454;

**MEDLINE=2017963; PubMed=10713454;

**A Trenkle T., McClelland M., Adlkofer K., Welsh J.;

**A Trenkle T., McClelland M., Adlkofer K., Welsh J.;

**A Trenkle T., McClelland M., Adlkofer K., Welsh J.;

**A Trenkle T., McClelland M., Adlkofer K., Welsh J.;

**The Major transcript variants of VAV3, a new member of the VAV3, a new member of the VAV3, a new member of the VAV4, and the Major transcript variants of THOSE FACTOR FOR GTP-BINDING PROTEINS RHC

**C GENERAL TITLE PRODUCTS: 2 ISOFORMS; ALPHA (SHOWN HERE) A ARE PRODUCED BY ALTERNATIVE SPLICING.

**C -!- SIMILARITY: CONTAINS 1 CALPONIN-HOMOLOGY (CH) DOMAIN.

**C -!- SIMILARITY: CONTAINS 1 DEDENDENT PHORBOL-ESTER AND THE MAJOR T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS50021; CH; 1.

PROSITE; PS500479; DAG_PE_BIND_DOM_2; 1.

PROSITE; PS50081; DAG_PE_BIND_DOM_2; 1.

PROSITE; PS50010; DH_2; 1.

PROSITE; PS50010; DH_1; 1.

PROSITE; PS50001; SH2; 1.

PROSITE; PS50001; SH2; 1.

PROSITE; PS50001; SH3; 2.

PROSITE; PS50002; SH3; 2.

Phorbol-ester binding; Zinc; SH2 domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMART;
SMART;
SMART;
SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                    O9ROCB;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last seq
15-JUN-2002 (Rel. 41, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMART;
                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARSPLIC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMART;
                                                                                                                                                                                                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VAV3_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
   BINDING DOMAIN.
SIMILARITY: CON
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SM00033;
SM00233;
SM00325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 NYEMK 5
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5; Conserv
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                                                                                                                                                                                                                                                                                                                                                        (Mouse)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
   CONTAINS
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97775
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                                                                                                                                                                                                                                                                                                                     Chordata;
Rodentia;
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annotation
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CH.
DH.
PH.
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SH2.
SH3 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEPWKQCAQWLIHCKVLPTNHRVTWDSAQVFDLAQTLRDGV
LLCQLLNNLRAHSINLKEINLRPQMSQFLCLKNIRTFLTAC
CETFGMRKSELFEAFDLFDVRDFGK -> MQLPDCPCRAHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 28;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PHORBOL-ESTER
                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Musidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (IN ISOFORM BETA).
-> E (IN REF. 2).
-> H (IN REF. 1; AAD20348).
-> S (IN REF. 2).
-> A (IN REF. 1; AAD20348).
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new member of the
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                                  PHORBOL-ESTER AND DAG
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RESULT 11
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PROSITE; PS50021; CH; 1.

PROSITE; PS500479; DAG_PE_BIND_I

PROSITE; PS50081; DAG_PE_BIND_I

PROSITE; PS50010; DH_2; 1.

PROSITE; PS50003; PH_DOMAIN; 1

PROSITE; PS50001; SH2; 1.

PROSITE; PS50001; SH2; 1.

PROSITE; PS50001; SH3; 2.

Phorbol-ester binding; Zinc; SI
TEGU_HSV7J
P52362;
01-OCT-1996
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DOMAIN
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DOMAIN 1
DOMAIN 192
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HSSP;
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InterPro; IPR003247; CF
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PF00018; SH3; 1.
PF00130; DAG_PE-bind;
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P29355; 19
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5; Conserv
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DAG_PE_BIND_DOM_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; CH_type.
; Calponin-like.
; DAG_PE-bind.
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SH2.
SH3.
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g factor.
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PHORBOL-ESTER AND DAG BIND:
SH3 1.
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SH3 2.
SH3 2.
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Best Local S
Matches 5
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COTON E., Visser J.J., Van Vuuren H.J.J.;

"Urease operon of Lactobacillus fermentum.";

Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: INVOLVED IN UREASE METALLOCENTER ASSEMBLY. BINDS NICKEL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                            use by non-profit institutions as long modified and this statement is not removed.
                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Enthe European Bioinformatics Institute. There are no restitute the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                 Bacteria; Firmicutes; Lactobacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9X525;
16-OCT-2001 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U43400; AAC54693.1; -. SEQUENCE 2059 AA; 239476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (JAN-1996) to the EMBL/GenBank/DDBJ databases.
-I- FUNCTION: TEGUMENT PROTEIN.
-I- SIMILARITY: BELONGS TO FAMILY THAT GROUPS TOGETHER HSV-1 UL36,
EHV-1 24, EBV BPLF1, HVS-1 64, VZV 22, AND HCMV UL48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alphaherpesvirinae; NCBI_TaxID=57278;
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Viruses; dsDNA viruses, no RNA stage; Herpesv
Alphaherpesvirinae; Simplexvirus.
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16-OCT-2001
                                                                                 entities requires a license agreement
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16-OCT-2001 (Rel.
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                                        AF120718; AAD22481.1;
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                           IPR004029;
                                                                    email to license@isb-sib.ch).
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Best Local :
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CONFLICT
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SEQUENCE
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                                                                                                                                                                                                                                             between the Swiss Institute of Bioinformatics the European Bioinformatics Institute. They was non-profit institutions as long a modified and this statement is not removed. entities requires a license agreement (See ) or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                Fu C., Maier R.J.;

"Sequence and characterization of three genes within the gene cluster of Bradyrhizobium japonicum.";

Gene 141:47-52(1994).....
                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Mol.
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      van Soom C., Browaeys J., Verreth C., Vanderleyden J.; "Nucleotide sequence analysis of four genes, hupC, hupD, hupG, downstream of the hydrogenase structural genes in Bradyrhizobium japonicum.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q45251; Q45249;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Hydrogenase expression/formation protein hupD
                                                                                                                                                                                          EMBL; Z21948; CAA79944.1; -.
EMBL; L24446; AAD13469.1; -.
HSSP; B7182; 1CFZ.
MEROPS; M52.001; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bradyrhizobium japonicum.
Bacteria; Proteobacteria; alpha subdivision; Rhizobiaceae group;
Bradyrhizobium group; Bradyrhizobium.
NCBI_TaxID=375;
                                                                                                                                                        InterPro; IPR004419; HupD
InterPro; IPR000671; Hydro
Pfam; PF01750; Hyc1; 1.
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                                                                                                   Hydrolase;
METAL
                                                                                                                                               PRINTS; PRO0446;
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                                                                                                                                                                                                                                                                                                                                                             -!- FUNCTION: NOT KNOWN.
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                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-USDA
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. STRAIN=USDA 110;
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4; Conserv
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234:508-512(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use by non-profit institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                               SEQUENCE FROM N.A.

MEDLINE-90097950; PubMed-2689876;

Susek R.E., Lindquist S.L.;

Susek R.E., Lindquist S.L.;

*hsp26 of Saccharomyces cerevisiae is related to the small heat shock proteins but is without a demonstrab mol. Cell. Biol. 9:5265-5271(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YEAST
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Transferase; Acyltransferase.
SEQUENCE 203 AA; 23415 MW;
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Submitted (FEB-1994) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION: SEEMS TO BE INVOLVED IN N-ACETYLATION (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE ACETYLTRANSFERASE FAMILY. ARD1
                              [2].
2].
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Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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SEQUENCE FROM N.A
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InterPro; IPR000182;
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EMBL; M26942; AAA79010.1; -.
EMBL; X76294; CAA53929.1; -.
EMBL; Z35941; CAA65016.1; -.
PIR; S45465; S45465.
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INIT_MET
CONFLICT
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Bossier P., Fitch I.T., Boucherie H., Tuite M.F.;
"Structure and expression of a yeast gene encoding
heat-shock protein Hsp26.";
Gene 78:323-330(1989).
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                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long modified and this statement is not removed.
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-!- DEVELOPMENTAL STAGE: EXPRESSED DURING THE ENTRY INTO
-!- PHASE RESULTING FROM GLUCOSE LIMITATION.
-!- INDUCTION: BY HEAT SHOCK, AND UNDER OTHER CONDITIONS
SUCH AS INCREASED SALT CONCENTRATION AND STARVATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Saccharomyces cerevisiae chromosome Yeast 10:959-964(1994).
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cGMP-inhibited LOW K(M) cAMP phosphodiesterase PEAK 37, CGI-PDE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                      LeBon T.R., Kasuya J., Paxton R.J., Belfrage P., Hockman S., Manganiello V.C., Fujita Yamaguchi Y.; Manganiello V.C., Fujita Yamaguchi Y.; "Purification and characterization of guanosine 3',5'-monophosphate-inhibited low K(m) adenosine 3',5'-monophosphate phosphodiesterase from human placental cytosolic fractions."; Endocrinology 130:3265-3274(1992).
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   Bovine respiratory syncytial virus. Viruses; ssRNA negative-strand viruses; Paramyxoviridae; Pneumovirinae; Pne
                                                                                                                           NS2
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Viruses; ssRNA negative-strand viruses;
Paramyxoviridae; Pneumovirinae; Pneumovi
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SEQUENCE FROM N.A.

STRAIN-9314893;
STRAIN-18914893;
Larsen L.E., Gottshalch E., Bli
submitted (MAR-1998) to the EMB
EMBL; AF054668; AAC36679.1; -
Interpro; IPR004336; RSV_NS2.
Pfam; PF03113; RSV_NS2; 1.
SEQUENCE 124 AA; 14605 MW;
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Submitted (MAR-1998) to the EME
EMBL; AF054666; AAC36673.1; -.
InterPro; IPR004336; RSV_NS2.
Pfam; PF03113; RSV_NS2; 1.
SEQUENCE 124 AA; 14635 MW;
                                                                                                                                                                                                                                                                                                   09YWM4;
01-MAY'1999 (TrEMBLrel. 1
01-MAY'1999 (TrEMBLrel. 1
01-DEC'2001 (TrEMBLrel. 1
Nonstructural protein 2.
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01-MAY-1999
01-DEC-2001
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                                                                                                                                                                                                                   Bovine respiratory syncytial virus. Viruses; ssRNA negative-strand viruses; Paramyxoviridae; Pneumovirinae; Pneumov
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NCBI_TaxID=11246;
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Viruses; ssRNA negative-strand viru
Paramyxoviridae; Pneumovirinae; Pne
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STRAIN-9304899;
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Similarity 100.0%;
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EMBL/GenBank/DDBJ data
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012405;
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EMBL; AF295543; AAL49393.1; --
InterPro; IRR004336; RSV_NS2.
Pfam; PF03113; RSV_NS2.
Pfam; PF03113; RSV_NS2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPECIES-Bovine respiratory syncytial virus; STRAIN-ATUE51908; MEDLINE-99102581; PubMed-9847328; Buchholz U.J., Finke S., Conzelmann K.K.; "Generation of bovine respiratory syncytial virus (BRSV) from cDNA: BRSV NS2 is not essential for virus replication in tissue culture, the human RSV leader region acts as a functional BRSV genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bovine respiratory syncytial virus, and Bovine respiratory syncytial virus (strain A51908) (BRS). Viruses; ssRNA negative-strand viruses; Mononegavirales; Paramyxoviridae; Pneumovirinae; Pneumovirus. NCBI_TaxID=11246, 11247;
                                                                                                                                                                                                                                       SPECIES-Bovine respiratory syncytial virus STRAIN-ATCC51908;
                                                                                                                                                                                                                                                                                  Yunus A.S., Khattar S.K., Collins P.L., "Rescue of bovine respiratory syncytial genome sequence of BRSV strain A51908.", Virus Genes 23:157-164(2001),
                                                                                                                                                                                                                                                                                                                                SPECIES-Bovine respiratory syncytial virus STRAIN-ATCC51908; MEDLINE-21580793; PubMed-11724268;
                                                                                                                                                                                                                                                                                                                                                                                      SPECIES-Bovine respiratory syncytial virus; STRAIN-ATUE51908; Buchholz U.J., Finke S., Conzelmann K.-K.; Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
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Best Local S
Matches 5
                           InterPro; IPR000671; InterPro; IPR003662; InterPro; IPR003662; Pfam; PF01750; Hyc1; TIGRFAMS; TIGR00072; PROSITE; PS00216; SUG
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01-JUL-1997
01-DEC-2001
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01-JUN-2001
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STRAIR-S2 AND S2 TSIC;
MEDLINE-97185152; PubMed-9032893;
Tolley K.P., Marriott A.C., Simps
Longhurst S.J., Evans J.E., Johns
Pringle C.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bradyrhizobium japonicum.
Bacteria; Proteobacteria;
Bradyrhizobium group; Brad
NCBI_TaxID=375;
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                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21101824; PubMed=11157954;
Gottfert M., Rothlisberger S., Kun
Hennecke H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON-structural protein NS2.
                                                                                                                                                                                                                                   Potential symbiosis-specific genes

DNA region of the Bradyrhizobium jar

J. Bacteriol. 183:1405-1412(2001).

EMBL; AF322012 AAG60707.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. STRAIN-110SPC4;
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STRAIN=S2 AND S2 TS1C;
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a modified strain of respiratory
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MEROPS; M52.001; -.
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4 AA; 14729 MW;
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   Ą
72; hydrog_prot; 1.
SUGAR_TRANSPORT_1; UNKNOWN_1.
; 14605 MW; FD371219966FD2F7
                                                                                                              Hydrgn_uptake.
sub_transporter
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Bradyrhizobium.
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Knowles B., Boon T.;
A new family of mouse genes homologous to Genomics 55:176-184(1999).
EMBL; AJ005532; CAA06586.1; -.
MGD; MGI:1333827; Magea8.
InterPro; IPR001092; HLH_basic.
InterPro; IPR002190; MAGE.
InterPro; IPR002190; MAGE.
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MAGEA8.
Mus musculus (Mouse).
Mus musculus (Mouse).
Mouse).
Mouse,
Metazoa; Chordata;
Metazoa; Rodentia;
                                                                  "A new family of mouse genes homologous Genomics 55:176-184(1999).

EMBL: AJ005530; CAA06584.1; -.
MGD: MGI:1333837; Magea6.
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Mammalia; Eutheria;
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01-NOV-1998 (TremBLrel.
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Magea6 protein.
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MEDLINE-99134295; PubMed-9933564;
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01-MAR-2002
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Martelange V., Avner P., Baldacci
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Martelange V., Avner P., Baldacci
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MEDILINE-21359325; PubMed-11466286;
Noelling J., Breton G., Omelchenko M.V., Makaro Gibson R., Lee H.M., Dubois J., Qiu D., Hitti J Tatusov R.L., Sabathe F., Doucette-Stamm L., So Bennett G.N., Koonin E.V., Smith D.R.;
"Genome sequence and comparative analysis of th bacterium Clostridium acetobutylicum.";
J. Bacteriol. 183:4623-4638(2001).

EMBL: AE007770; AAR80671.1;
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAIN=BRISTOL N2;

MEDLINE=94150718; PubMed=7906398;

Milson R., Ainscough R., Anderson K., Baynes C., Berks M.,

Wilson R., Burton J., Connell M., Copsey T., Cooper J.,

Bonfield J., Burton J., Connell M., Favello A., Fulton

Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton

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F53E10.5 protein.
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Eukaryota; Metazoa; Nem
Rhabditidae; Peloderina
NCBI_TaxID=6239;
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Bacteria; Firmicutes; Bacillus/Clostridium Clostridiales; Clostridiaceae; Clostridium.
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01-OCT-2001 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
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PROSITE; PS00038; HELIX_LOOP_HELIX; SEQUENCE 325 AA; 36640 MW; 4F582
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4F582109EC03383A
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O9ZFG7,

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O1-MAY-1999 (TrEMBLrel. 10, Created)

O1-MAY-1999 (TrEMBLrel. 10, Last sequence update)

O1-MAY-1999 (TrEMBLrel. 21, Last annotation update)

O1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
  0956V4;
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01-MAY-2000 (
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Submitted (FEB-1997) to the EMBL/GenBank/DDBJ databases
EMBL; U88177; AAB42291.1; -.
SEQUENCE 358 AA; 41249 MW; 288D3CA725629352 CRC64;
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Lightning J., Lloyd C., McMurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
"2.2 Mb of contiguous nucleotide sequence from chromosome III of C
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vannuffel P., Heusterspreute M., Bouyer M., Philippe M., Gala J. "Molecular characterization of femA from Staphylococcus hominis, Staphylococcus saprophyticus and Staphylococcus haemolyticus and based discrimination of staphylococcal species."; Res. Microbiol. 0:0-0(1998).

Res. Microbiol. 0:0-0(1998).

EMBL: AF099962; AAC69631.1; -.

InterPro; IPR003347; Meth_resist.
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"The sequence of C. elegans
Submitted (FEB-1997) to the
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SEQUENCE 420 AA; 49
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Bacteria; Firmicutes; Bacillus/Clostridium group; Bacillales;
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EMBL; U23711; AAD22132.1; .
InterPro; IPR003447; Meth_resist.
Pfam; PF02388; FemAB; 1.
SEQUENCE 420 AA; 49559 MW; 1C003811D2C59C1E CRC64;
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Bacteria; Firmicutes; Bacillus/Clostridium
Staphylococcus.
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HOSKINS J., Alborn J.r.W.E.,
Skatrud P.L.;
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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compus

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## SUMMARIES

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| Human glycoprotein | Rat megsin protein | Rat megsin protein | Rat megsin protein | Rat megsin protein | Human megakaryocyt | Human megsin prote | Human megsin prote | Human megsin prote | Human megakaryocyt | Description              |

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## ALIGNMENTS

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RESULT 1
AAR48379
WPI; 1994-058782/08.
N-PSDB; AAQ56670.
                                                                                              17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                                                                  Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                                                                                                                                                                                                                                                                                       AAR48379;
                                                                                                                                                                                                                                                                                                                            AAR48379 standard; Protein; 380 AA.
                              Ishida N, Iwasa F,
Tsujimoto M, Tsuru
                                                                                                                                                                                                                                                             Human megakaryocyte differentiation factor.
                                                                                                                                                                                                                                                                                 16-AUG-1994 (first entry)
                                                                                                                                                   23-FEB-1994.
                                                                                                                                                                         EP583884-A.
                                                                                                                                                                                            Homo sapiens.
                                                              (SUNR ) SUNTORY LTD.
(TSUJ/) TSUJIMOTO M.
                                                                                                                              19-JUL-1993;
                               rsa F, Kurihara T, Miura K, Nakazato H;
Tsuruoka N, Yamaguchi N, Yamaichi K;
                                                                                             92JP-0212305.
93JP-0067339.
                                                                                                                              93EP-0305654
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RESULT 2
AAY08254
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 Best Loc
Matches
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Best Local
                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human MDF can be isolated from a culture of human epidermoid carcinoma A431 cells in protein free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoietin making it useful for treatment of diseases involving a decrease in platelet number
                                  Sequence
                                                                                                  Claim 1; Page 62-64; 100pp; Japanese.
                                                                                                                                    N-PSDB;
                                                                                                                                             WPI;
                                                                                                                                                            Miyata T;
                                                                                                                                                                                                                                     01-APR-1999;
                                                                                                                                                                                                                                                      WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 5: SDS-PAGE and exhibits an isoelectric point of 6.0-7.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New megakaryocyte differentiation epidermoid carcinoma cells, used t
                                                                                                                   Megsin protein expressed specifically in
                                                                                                                                                                                                     22-SEP-1997;
                                                                                                                                                                                                                     22-SEP-1998;
                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                             Megsin;
                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                              14-JUL-1999
                                                                                                                                                                                                                                                                                                                                              AAY08254;
                                                                                                                                                                                                                                                                                                                                                              AAY08254 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              decrease in platelets
                                                                                                                                                                            (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
         Local
                                                                                                                                    1999-276983/23
DB; AAX56712.
                                                                                                                                                                                                                                                                                                                                                                                                     204 AVAMMHQERK 213
                                                                                                                                                                                                                                                                                                             megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7; Page 30-32; 47pp;
                                                                                                                                                                                                                                                                                     rat; murine.
                                                                                                                                                                                                                                                                                                                                                                                                                       1 AVAMMHQERK
                                                                                                                                                                                                                                                                                                                                                                                                                                      10;
         Similarity
                                                                                                                                                                                                                                                                                             mesangial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 100 l0; Conservative
100.
nilarity 100.
Conservative
                                  380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     380 AA;
                                                                                                                                                                                                                                                                                                             protein.
                                                                                                                                                                                                                                                                                                                             (first entry)
                                  ₽,
                                                                                                                                                                                                     97JP-0275302
                                                                                                                                                                                                                     98WO-JP04269
                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                      10
                                                                                                                                                                                                                                                                                                                                                                                                                                              100
                                                                                                                                                                                                                                                                                             treatment;
         .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                              0,0%;
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 0;
                                                                                                                                                                                                                                                                                                                                                              380
                                                                                                                                                                                                                                                                                                                                                                                                                                      o,
Score 50; DB Pred. No. 0.0 0.0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 50;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                              A
                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              factor -
                                                                                                                                                                                                                                                                                             diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treat conditions involving
                                                                                                                                                                                                                                                                                                                                                                                                                                             0.06;
                                                                                                                  mesangial cells
        .06;
                DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 15;
                                                                                                                                                                                                                                                                                            disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 380;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              55-57kD
                                                                                                                                                                                                                                                                                            IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
AAB83075
ID AAB8
XX
AC AAB8
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                                 RESULT 4
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10;

0;

Indels

0;

Gaps

0;

AAB83075 standard;

Protein;

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RESULT 3
AAB24142
                                                                                                     Query Match
Best Local
                                                                                Matches
                                                                                                                                                                                            The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the human megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 2; Page 66-69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         biological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Evaluating renal function comprises assaying megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-MAR-2000; 2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-SEP-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24142;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB24142 standard;
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DB; AAA99294.
  204
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            megsin
                                      1 AVAMMHQERK
                                                                                10;
                                                                                                     Similarity
AVAMMHQERK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AVAMMHQERK 10
                                                                                                                                                                380
                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99JP-0075305
99JP-0306623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213
213
                                      10
                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                               93pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       380
                                                                                0,
                                                                                                     Score 50;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA.
                                                                                Mismatches
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                                                                                                   0.06;
                                                                                                                        DВ
                                                                                                                        21;
                                                                                0;
                                                                                                                      Length 380;
                                                                                Indels
                                                                                0;
                                                                              Gaps
                                                                                0;
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RESULT 5
AARS7115
ID AARS
IID AARS
XX
AC AARS
XX
XX
Hume
XX
Hume
XX
Hume
XX
Hume
XX
Hone
XX
Ho
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is human megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useful for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
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                                                                                                                                                                                                     Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments \,\cdot\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-300136/31.
N-PSDB; AAF82438.
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  EP583884-A.
                                                                           Misc-difference
                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                            Human megakaryocyte
                                                                                                                                                                                                                                                                                                                                                               16-AUG-1994
                                                                                                                                                                                                                                                                                                                                                                                                                   AAR57115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR57115 standard; peptide; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 4; Page 44-46; 62pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-OCT-2000; 2000WO-JP06988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204 AVAMMHQERK 213
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10;
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                                                                                                                                                                                                                                                                                                                                                               (first entry)
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                                                                           Location/Qualifiers
                                                /note-
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                                                                                                                                                                                                                                                                                                            differentiation
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                                                   "not determined"
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Pred. No. 0.06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                            factor
                                                                                                                                                                                                                                                                                                            peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             380;
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RESULT 6
AAY08255
В
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                          Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoiettin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SUNR )
                                                                                                                                                                                Megsin; mesangial cell; human; rat; murine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 21; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ishida N, Iv
Tsujimoto M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JUL-1992;
04-MAR-1993;
                                                                                                                 01-APR-1999.
                                                                                                                                       WO9915652-A1.
                                                                                                                                                           Rattus rattus.
                                                                                                                                                                                                                Rat megsin protein
                                                                                                                                                                                                                                       14-JUL-1999
                                                                                                                                                                                                                                                           AAY08255;
                                                                                                                                                                                                                                                                                 AAY08255
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       decrease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New megakaryocyte differentiation factor - isolated from human epidermoid carcinoma cells, used to treat conditions involving
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1994-058782/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-FEB-1994
                                        (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                        22-SEP-1997;
                                                                                             22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                       _
                                                                                                                                                                                                                                                                                                                                                    1 AVAMMHQERK 10
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TSUJIMOTO M.
                                                                                                                                                                                                                                                                                                                                                                               similarity
9; Conserv
                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                      AVAMMHQXRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in platelets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Iwasa F, Kurihara T, Miura K, Nakazato
M, Tsuruoka N, Yamaguchi N, Yamaichi K;
                                                                                                                                                                                                                                                                                                                                                                                                                          10 AA;
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                      (first
                                                                         97JP-0275302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92JP-0212305
93JP-0067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93EP-0305654
                                                                                             98WO-JP04269
                                                                                                                                                                                                                                                                                  Protein;
                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                          90.0%;
                                                                                                                                                                                            treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                  380
                                                                                                                                                                                                                                                                                                                                                                               Score 44; DB Pred. No. 0.02 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                           DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                   Length 10
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WPI; 1999-276983/23.

Miyata T;

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RESULT 7
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Best Local
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The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles;
                                                                                                                                WPI;
                                                                                      biological
                                                                                               Evaluating
                                                                                                                     N-PSDB;
                                                                                                                                                                      (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                 19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                        Misc-difference
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ey
                                                                  Example
                                                                                                                                                    Miyata
                                                                                                                                                                                                                                                 17-MAR-2000;
                                                                                                                                                                                                                                                                      28-SEP-2000
                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                            Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                 diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                         Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This invention describes the isolation of novel megsin nucleic acid an proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                                                                                                                                                                                                                         WO200057189-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                          Rat megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB24150 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB24150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Megsin protein expressed specifically in mesangial cells
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                                                                                                                               2000-611642/58
                                                                                                                                                                                                                                                                                                                                                                                              immunoglobulin A;
nosis; biological
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8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AVNMMHQERR 213
                                                                Page 81-84;
                                                                                     renal function comprises assaying megsin protein sample \ \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              380
                                                                                                                                                                                                                                                                                                                                                                                                                                         protein sequence
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human, rat
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99JP-0306623
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/note=
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Pred. No. 3.8;
1; Mismatches
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AVNMHQERR

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1 AVAMMHQERK 10

Matches

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RESULT

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RESULT 8
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Best Local
                                            Sequence
                                                                present invention. Mes and its level is eleva the serum or urine lev this type of disorder.
                                                                         The present invention relates to a novel antibody which recognises peptide consisting of residues 341-354 of rat megsin protein. The peptide consisting of residues and its level is elevated in mesangium proliferative nephritis. Asset the serum or urine level using the antibody is therefore indicative the serum or urine level using the antibody is therefore indicative
                                                                                                                                                                             New antibody recognizing a partial sequence diagnosis of mesangium proliferative nephrit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the rat megsin protein, which is given in the exemplification of the present invention
                                                                                                                                                         Disclosure;
                                                                                                                                                                                                               WPI; 2001-425651/45
N-PSDB; AAH48181.
                                                                                                                                                                                                                                              Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                   Rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Rat
                                                                                                                                                                                                                                                                    (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                      28-DEC-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       megsin protein
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Similarity
8; Conserv
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8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
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                                             380
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          Score 41;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                 cell; mesangium proliferative nephritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 41;
Pred. No.
                                                                                                                                                       Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                             equence of nephritis
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          DB
3.8;
                       22;
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                                                                                                                                                                                  rat
                      Length 380;
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RESULT 10
ABP34239
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-300136/31.
N-PSDB; AAF82439.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure;
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anglogenesis; activin; inhibin; chemotactic; chemokinėtic; haemost
thrombolytic; tumour inhibition; boddiy characteristic; fertility;
behaviour; cancer; proliferative disorder; neurological disorder;
cardiovascular disease; immune system disorder; organ transplantat
                                                                                                                                                                                                                     Human glycoprotein-like ORF3212 protein,
                                                                                                                                                                                                                                                                             08-JUL-2002
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                                                                           Human; ORF; open reading frame; ORRX; drug screening; diagnosis; disease monitoring; cytokine; cell proliferation; cell differentiation; fissue growth; famune modulation; haematopolesis regulation; tissue growth; anglogenesis; activin; inhibin; chemotactic; chemokinetic; haemostatic;
                                                                                                                                         disease
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les 8; Conserv
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MIYATA T.
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Pred. No. 3
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                                                                                                                                                                                                                       ID NO:6424.
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CC other proliferative disorders such as psorlasis and benign tumours, cc other proliferative disorders such as psorlasis and benign tumours, cc neurological disorders such as pliepsy and Alzheimer's disease, cc cardiovascular diseases, immune system disorders, disorders related to corgan transplantation, disorders of tissue growth and regeneration, cd diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infectious diseases caused by viral, bacterial, cc fungal and other pathogens. ORFX nucleic acids may also be used as a csource of primers and probes, in the detection of ORFX genomic sequences cor transcripts, in the identification and cloning of homologous correctly in genetic diagnosis, and in forensic biology. The ORFX nucleic acids may additionally be used to produce transgenic animals which may be useful for studying the function and/or activity of ORFX correctles, and in drug screening. The ORFX proteins may also be used as immunogens to generate specific antibodies, which are useful in the cc diagnosis, treatment and monitoring of ORFX-associated diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequences ABP31028-ABP35561 represent 4534 novel human proteins designated ORF (open reading frame) 1-4534, and sequences ABN75054- ABN79587 represent cDNAs encoding them. The invention also encompasses polypeptides at least 80% identical to the ORF1-ORF4534 (collectively referred to as ORFX) proteins, polynucleotides at least 85% identical to the ORFX nucleic acid sequences, vectors and host cells comprising ORFX polynucleotides, the recombinant production of ORFX proteins, antibodies specific for ORFX proteins, methods of detecting ORFX proteins, antibodies specific for ORFX proteins, methods of detecting ORFX polynucleotides and polypeptides, methods of screening for modulators of ORFX expression or activity, and methods of screening for modulators of Proteins and ORFX-associated disorder. The ORFX proteins of the invention have a wide range of biological activities, such as cytokine, cell proliferation, cell differentiation, immune modulation, haematopoiesis regulation, cell differentiation, immune modulation, haematopoiesis regulation, cell differentiation, haemostatic activity, thrombolytic activity, chemotactic/ chemokinetic activity, haemostatic activity, thrombolytic activity, chemotactivity, and may also be involved in the determination and may also be involved in the determination.
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neuroprotective; antiatherosclerotic; anticoagulant; thrombolytic;
cardiant; hypotensive; antithyroid; antiinflammatory; immunomodula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tissue growth disorder; tissue regeneration disorder; diabete, hypothyroidism; cholesterol ester storage disease; infection; vasotropic; antipsoriatic; antidiabetic; cytostatic; nootropic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and antiinfective activity, and may also be involved in the determination of bodily characteristics, fertility and behaviour. ORFX proteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 10; Page 1854;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel human polypeptides and polynucleotides useful for diagnosing, preventing and treating cardiovascular disease, neurodegenerative, hyperproliferative disorders and disorders related to organ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ABN78265.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200190366-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             dermatological;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-MAY-2000; 2000US-206690P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-MAY-2001; 2001WO-US17076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-106200/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ¥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shimkets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             analgesic; virucide; antibacterial; fungicide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2508pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vulnerary;
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Query Match Best Local Matches

Similarity 8; Conserv

. 9%;

Score 40; Pred. No.

BB

Length 131; Indels

Mismatches

0

Gaps

0

Sequence

131

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RESULT 12
AAB24151
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                                                                                                                                                                                                                              RESULT 11
AAY08256
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                                                                                                                                                                                                Query Match
Best Local :
                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
Protein
IgA; immunoglobulin A; detection; renal fur
diagnosis; biological sample; blood; urine.
         Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder;
                                                           30-JAN-2001
                                                                              AAB24151;
                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                      This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                                                                                                                                                                                                                                       Claim 1; Page 76-79; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                            Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY08256 standard; Protein;
                                      Mouse megsin protein sequence
                                                                                                AAB24151 standard;
                                                                                                                                                                                                                                                                                                                           Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                           22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                              22-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-APR-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Megsin; mesangial cell; treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY08256;
                                                                                                                                                                                                                                                                                                                                                                                              (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human; rat; murine.
                                                                                                                                                                                                                                                                                                                                               1999-276983/23.
DB; AAX56714.
                                                                                                                                                 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                such
                                                                                                                                                            2 VAMMHQERK 10
                                                                                                                                                                                                Similarity
                                                                                                                                                VNMMHQERR 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     368 AA;
                                                                                                                                                                                                                                               as IgA nephropathy.
                                                                                                                                                                                       Conservative
                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                           97JP-0275302
                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-JP04269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1..368
                                                                                               Protein;
                                                          entry)
                                                                                                                                                                                               74.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "partial sequence"
                                                                                                 368
                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      368
                                                                                                                                                                                                Pred.
                                                                                                                                                                                                         Score 37;
                                      SEQ ID NO:21.
                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
                                                                                                                                                                                               No.
                                                                                                                                                                                              . 23;
                                                                                                                                                                                                         20;
                                                                                                                                                                                     ۲.
                                                                                                                                                                                                         Length 368;
                                                                                                                                                                                      Indels
                                                                                                                                                                                     0;
                                                                                                                                                                                     Gaps
                                                                                                                                                                                     0;
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(KURO/) KUROKAWA K.

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RESULT 13
AAB83077
ID XXX ACC XXX DEE XXX DEE XXX XXX XXX PD OS XXX XXX PPD DA XXX XXX PPR DA XXX XX PPR DA XXX XX PPR DA XXX PPR DA XXX PPR DA XXX PPR DA XXX XX PPR DA XXX XX PPR DA XXX XX PPR DA XXX PPR DA XXX PPR DA XXX XX PPR DA XXX PPR DA
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Best Local S
Matches 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the mouse megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KURO/)
                                                06-OCT-1999;
                                                                                                06-OCT-2000; 2000WO-JP06988
                                                                                                                                                                                                     WO200124628-A1
                                                                                                                                                                                                                                                        Mus musculus.
                                                                                                                                                                                                                                                                                                        Mouse; megsin; me
transgenic mouse;
                                                                                                                                                                                                                                                                                                                                                                                   Murine megsin protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB83077;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB83077 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-611642/58
N-PSDB; AAC55239.
                                                                                                                                                     12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           biological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Evaluating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-MAR-2000; 2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200057189-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MIYA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            193 VNMMHQERR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) KUROKAWA K.
) FUSO PHARM :
) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 VAMMHQERK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   renal function comprises assaying megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  368 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 89-91;
                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                99JP-0285736
                                                                                                                                                                                                                                                                                                                                   mesangial cell proliferative nephritis; nephrotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99JP-0075305
99JP-0306623
                                                                                                                                                                                                                                                                                                        glomerular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein; 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 37; DB Pred. No. 23; 1; Mismatches
                                                                                                                                                                                                                                                                                                              disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                                                                                                                                                                                              animal model;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 368;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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RESULT 14
ABG11324
ID ABG11
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AC ABG11
XX
DT 18-F
DT 18-F
XX NOVE
XX NOVE
XX FOOC
XX 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is murine megsin protein. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useful for analysing the pathology of chronic glomerular diseases and for secreening compositions for prevention and treatment of the diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                          New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess biodiversity
                                                                                                                                                                                                                                                                                                                                                                                                                                         31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG11324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABG11324 standard; Protein; 118 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
  The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes.
                                                                               Claim 20;
                                                                                                                                                                                                                                                                                                                                       Drmanac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human diagnostic protein #11315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                         (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Highly uniform models can be made easily and in large numbers using
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DB; AAS75511.
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upplement; medical imaging; diagnostic; genetic disorder.
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                                                                          ID No 41683; 103pp; English.
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RESULT 15
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CC Note: The sequence data for this patent did not appear in the printed CC specification, but was obtained in electronic format directly from WIPO CC at fip.wipo.int/pub/published_pct_sequences.
Query Match
Best Local S
Matches 5
                                                                                                                                                                                                                                                                                                                                                                                                                     Human; secreted protein; EST; expressed sequence tag; dlagnosis; forensic; gene therapy; chromosome mapping; signal peptide; upstream regulatory sequence; cytokine activity; cell proliferation; differentiation; haematopoiesis regulation; tissue growth regulation; reproductive hormone regulation; chemotactic; chemokinetic; haemostatic; thrombolytic; anti-inflammatory; tumour inhibition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY11676 standard; Protein; 67
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                                                                       New nucleic acids encoding human secreted proteins - obtained from cDNA libraries derived from liver, lung, large intestine, colon, thyroid and pancreas tissue
                                                                                                                                                                                                                                                       01-AUG-1997;
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                                                                                                                                         WPT; 1999-153700/13.
N-PSDB; AAX40394.
                                                                                                                                                                                                                                                                                       31-JUL-1998;
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 $\mathtt{AAX40251}$  to  $\mathtt{AAX40397}$  represent 5' expressed sequence tags (ESTs) for human secreted proteins, and encode the proteins given in  $\mathtt{AAY11533}$  to

Claim 27; Page 395-396; 398pp; English

Search completed: July 11, 2003, 11:54:26 Job time: 6.73805 secs δ 멍 CC AAY11679, respectively. The proteins given represent the signal peptide CC and an N-terminal fragment of a secreted protein. The nucleic acid CC sequences can be used for producing secreted human gene products. They CC can also be used to develop products for diagnosis and therapy. The CC proteins obtained may have cytokine activity, cell proliferation/differentiation activity, haematopoiesis regulating CC activity, tissue growth regulating activity, reproductive hormone CC regulating activity, receptor/ ligand activity, anti-inflammatory CC consolvity tumour inhibition activity or other activities. The products CC The sequences can also be used for obtaining corresponding promoter CC sequences. The nucleic acids encoding the signal peptide can be used for CC directing extracellular secretion of a polypeptide or the insertion of a CC polypeptide into a membrane, or importing a polypeptide into a cell. Query Match 68.0%; Best Local Similarity 55.6%; Matches 5; Conservative Sequence 1 AVAMMHQER 9 |:|::|:| 18 AIAVLHEER 26 67 AA; Score 34; DB Pred. No. 16; Mismatches 20; Length 67; 0; Indels 0; Gaps 0;

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Minimum DB
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164.563 Million cell updates/sec
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/cgn2_6/ptodata/1/laa/5B_COMB.pep:*
/cgn2_6/ptodata/1/laa/5B_COMB.pep:*
/cgn2_6/ptodata/1/laa/6B_COMB.pep:*
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   US-08-611-977-9
US-08-472-659-34
US-08-474-661-34
US-08-611-977-34
US-08-611-977-34
US-08-685-992-10
US-08-685-992-10
US-08-08-287-959-13
US-08-08-287-959-13
US-08-08-08-97-3
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US-08-196-387-8
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Sequence 9, Appli
Sequence 34, Appl
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US-08-611-977-9
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| 45               | 44               | 43                | 42                | 41               | 40               | 39               | 38                | 37                | 36                | 35               | 34              | ω<br>G          | 32              | 31              | 30               | 29               | 28                |
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| 29               | 29               | 29                | 29                | 29               | 29               | 29               | 29                | .29               | 29                | 29               | 29              | 29              | 29              | 29              | 29               | 29               | · 29              |
| 58.0             |                  |                   |                   |                  |                  | 58.0             |                   |                   |                   |                  |                 |                 |                 |                 | 58.0             |                  |                   |
| . 588            | 588              | 587               | 587               | 587              | 587              | 539              | 511               | 511               | 281               | 245              | 238             | 238             | 238             | 238             | 238              | 171              | 166               |
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| US-09-135-642-25 | US-08-436-664-25 | PCT-US95-04080-23 | US-08-394-232A-23 | US-09-135-642-23 | US-08-436-664-23 | US-09-057-969-4  | US-09-243-920-1   | US-09-073-362-1   | US-08-961-083-196 | US-08-825-781-1  | US-09-182-616-2 | US-09-082-021-2 | US-08-878-283-2 | US-08-884-203-2 | US-08-289-699A-2 | US-09-724-864-59 | US-08-689-276A-13 |
| Sequence 25, Ap  | Sequence 25, Ap  | Sequence 23, Ap   | Sequence 23, Ap   | Sequence 23, Ap  | Sequence 23, Ap  | Sequence 4, App. | Sequence 1, Appli | Sequence 1, Appl: | Sequence 196, A   | Sequence 1, Appl | Sequence 2, App  | Sequence 59, Ap  | Sequence 13, Ap   |
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## ALIGNMENTS

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Sequence 9, Application Patent No. 5972886
GENERAL INFORMATION:
TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/611,977
FILLING DATE: 06-MAR-1996
                                                                                                                                                                                 APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-UUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: MIURA, Kenju
APPLICANT: ISHIDA, NO. 5972886uhiro
APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, Kozo
APPLICANT: YAMAICHI, Kozo
APPLICANT: YAMAGUCHI, NO. 5972886cmi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 PRIOR APPLICATION DATA:
                                                                 TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: P.O. Box 1
CITY: Alexandria
STATE: Virginia
COUNTRY: United St
                                                                                                                  REGISTRATION NUMBER: 39,300 REFERENCE/DOCKET NUMBER: 00:
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                                                                                                                                                           McGowan, Malcolm K.
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                                  ; MOLECULE TYPE: US-08-472-659-34
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                                                                                         INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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CLASSIFICATION: 536

PRIOR APPLICATION DATA:

APPLICATION NUMBER: JP 4-212305

APPLICATION NUMBER: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: JP 5 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                          REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                               TOPOLOGY:
                                                                                                                                                                                           REFERENCE/DOCKET NUMBER:
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                                                                                                                                            (703) 836-2021
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NAKAZATO, Hiroshi
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YAMAGUCHI, NO. 5831030cmi
ENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
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14-JUL-1993
                                               protein
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   100.0%;
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BER: 001
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   Score 50;
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 DB 2;
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Length 380;
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                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 17-JUL-
PRIOR APPLICATION DATA:
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                                                                                                                                   MOLECULE TYPE: protein
                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                              LENGTH: 380 amino acids
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APPLICATION NUMBER: JP 4-212305
APPLICATION 11-JUL-1992
                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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204 AVAMMHQERK 213
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                             1 AVAMMHQERK 10
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                                                                          Similarity
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                                                           Conservative
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NAKAZATO, Hiroshi
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                                                                         Score 50; DB 2;
Pred. No. 0.013;
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RESULT 4

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US-08-472-659-9
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                                                            Sequence 9, Application Patent No. 5831030 GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                APPLICANT:
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FILING DATE: 06-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-UL-1993
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CORRESPONDENCE ADDRESS:
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PRIOR APPLICATION DATA:
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   APPLICANT:
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                    \PPLICANT:
                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-204
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CITY: Alexandria
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                                                                                                                                                                                                                                                                  Local
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                                                                                                                                                                                 204 AVAMMHQERK 213
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                                                                                                Application US/08472659
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TSUJIMOTO, Masafumi
IWASA, Fuyuki
TSUROUOKA, No. 5831030uo
NAKAZATO, Hiroshi
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Pred. No. 0.013;
                                                                                                                                                                                                                                                                                DB 2; Length 380;
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; MOLECULE TYPE: peptide US-08-472-659-9
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Best Local (
                                                                                                                                                                                   Sequence 9, Apr. Sequence 9, Apr. 5874253
                                                                                                                                                                           Patent No. 5874253 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (703) 836-202 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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FILING DATE: 14-JUL-1993
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
           APPLICANT: YAMAGUC TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: sir
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ZIP: 22313-1404
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                                                                                                                                                                                                         Application US/08474661
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                         MIURA, Kenju
ISHIDA, NO. 5874253uhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. 5874253omi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E: Burns, Doane, Swecker & Mathis
P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10 amino acids
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KURIHARA, Talbu,
YAMAICHI, KOZO
YAMAICHI, NO. 5831030omi
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ISHIDA, No. 5831030uhiro
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                                                                                                            TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
                                                                                                                                         IWASA, Fuyuki
                                                                                                                                                          TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
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MEGAKARYOCYTE DIFFERENTIATION FACTOR
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Pred. No. 0.0046;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Version #1.30
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US-08-685-992-10
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                                                                                                                                                                                                                                                                                                   Patent No. 5912138
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (703) 836-66
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy
                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                         TITLE OF INVENTION: SUBSTRATE TRAPPING PROTEIN TYROSINE PHOSPHATASES
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                                                                                                                                                                                                              NUMBER OF SEQUENCES:
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                               SOFTWARE:
                                           COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
                                                                                                       COUNTRY: U
ZIP: 02173
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    APPLICATION
                                                                                                                                                                  ADDRESSEE: HAMILTON, BROOK STREET: Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/01 FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Alexandria
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               APPLICATION DATA:
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                           FastSEQ for Windows Version
                                                                                                                                                                                                                                                         Flint, Andrew J
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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US/08/685,992
                                                                                                                                                                       BROOK, SMITH & REYNOLDS, P.C
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g., Washington & Prince
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Best Local Similarity bu...
""" best Conservative
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                                      SEQUENCE CHARACTERISTICS
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                                                                                                                                        FILING DATE: July 25, 199
ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,
                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 0
FILING DATE: July 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: C: TELECOMMUNICATION INFORMATION TELEPHONE: 781-861-6240
                                                                                                TELECOMMUNICATION INFORMATION: TELEPHONE: 781-861-6240
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MEDIUM TYPE: Diskette
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LENGTH: 253 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 3
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NAME: Granahan, Patricia
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PRIOR APPLICATION DATA:
                      LENGTH:
                                                                       TELEPHONE: 781-861-9540
                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEQ for Windows Version 2.0b
                                                                                                               REFERENCE/DOCKET NUMBER: CSI
STRANDEDNESS:
                                                                                                                                                                                                                                CLASSIFICATION:
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                      253 amino acids
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Pred. No.
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US-08-015-985-3
                                                                                                          RESULT 10
US-08-287-959-14
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                                                             Sequence 14, Application US/08287959 Patent No. 5639651 GENERAL INFORMATION:
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Best Local :
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SEQUENCE CHARACTERISTICS:
LENGTH: 793 amino and myon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Schlessinger
APPLICANT: Sap, Jan M.
TITLE OF INVENTION: NOV
TITLE OF INVENTION: PHC
NUMBER OF SEQUENCES: 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/015,985
FILING DATE: 10-FEB-1993
CLASSIFICATION: 435
ATTORREY/AGENT INFORMATIN:
                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 7683-020
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
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                                             APPLICANT:
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Local Similarity 66.7%;
les 6; Conservativo
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Local Similarity 85.7%;
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 TLE OF INVENTION:
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1155 AVENUE OF THE AMERICAS
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                             Weissbach, Lawrence
Bernards, Andre
Settleman, Jeffrey
'ENTION: GAP-RELATED GENE
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Pred. No. 23;
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US-08-807-151-3
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                        COMPUTER: 1BM ...... DOS
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/807,7
APPLICATION THE HEREWITH
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
TOPOLOGY: line--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 30 amino acids
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
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NAME: Clark, Paul C.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00'
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: E
                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: NOVEL HUMAN PROSTATE-ASSOCIATED TITLE OF INVENTION: PROTEASE
                                                                                                                                                                                                                                                                                                             APPLICANT: Bandman, Olga APPLICANT: Lal, Preeti
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STREET: ...
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TELEFAX: 200154
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ZIP: 02110
                                                                                                                                                               COUNTRY: UZIP: 94304
                                                                                                                                                                                            STATE:
                                                                                                                                                                                                         CITY: Palo Alto
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                                                                                                                                                                                                                                      ADDRESSEE:
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U.S.A.
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                                                                                                                                                                                                                       3: Incyte Pharmaceuticals, Inc 3174 Porter Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                              E: Diskette
IBM Compatible
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64.0%;
                                                          US/08/807,151
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9, 1994
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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NAME: Billings, Lucy J.

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   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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APPLICANT: Bandman, Ol
APPLICANT: Lal, Preeti
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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FILING DATE:
CLASSITET DOS

CURRENT APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
                                                                                                                            IMMEDIATE SOURCE:
LIBRARY: GenBa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
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LIBRARY: GenBank
CLONE: 416132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 31, CITY: Palo Alto
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM CON OPERATING SYSTEM:
                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: sin
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE:
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Local Similarity 66.7%;
es 6; Conserva++...
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                                                                                                                                                                                                                                                                                          ENGTH:
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6350448
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                                                                                               : GenBank
416132
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3174 Porter Drive
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   64.0%;
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   Score 32;
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Pred. No.
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DB 4;
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   Length 235;
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                                                                                                                                                               US-08-685-992-9
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US-08-015-985-6
                                                                                                                                  Sequence 9, Application US/08685992 Patent No. 5912138
                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence 6, Application US/08015985 Patent No. 5538886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 66.7
Matches 6; Conservative
                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (212)
TELEX: 66141 PE
INFORMATION FOR SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/
FILING DATE: 10-FEB-1993
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Schlessinger
APPLICANT: Sap, Jan M.
TITLE OF INVENTION: PK
TITLE OF INVENTION: PK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 761
TELECOMMUNICATION INFORMATION:
                          NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                         TITLE OF INVENTION:
                                                                                      APPLICANT: Tonks, Nicholas APPLICANT: Flint, Andrew J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                     Local Similarity
nes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
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               DDRESSEE:
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Coruzzi, Laura A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NEW YORK
Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                       236 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (212) 869-9741/8864
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                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                             unknown
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          HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PENNIE & EDMONDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     PENNIE
EQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                           single
                                                         SUBSTRATE TRAPPING PROTEIN TYROSINE PHOSPHATASES
                                                                                                                                                                                                                                                                                                   64.0%;
85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Release #1.0, Version #1.25
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Pred. No.
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33;
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COUNTRY: U: ZIP: 02173

Lexington

MA: USA

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US-09-144-925-9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 9, Application US/09144925 Patent No. 5951979
COMPUTER: IBM Compatible
operating system: Windows 95
SOFTWARE: FastSEQ for Windows Version 2.0b
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/144,925
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/685,992
FILING DATE: July 25, 1996
ATTORNEEY/AGENT INFORMATION:
NAME: Granahan, Patricia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 64.0%;
Best Local Similarity 85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Tonks, Nicholas
APPLICANT: Flint, Andrew J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: CSHL
TELECOMMUNICATION INFORMATION:
TELEPHONE: 781.861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08,
FILING DATE: 25-UU-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 254 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
STREET: Two Militla Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows 95
SOFTWARE: FastSEQ for Windows Version 2.0b
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: SUBSTRATE TRAPPING PROTEIN TITLE OF INVENTION: TYROSINE PHOSPHATASES NUMBER OF SEQUENCES: 36
                                                                                                                                                                                                                                                                                                        STREET: TWO MILLS
CITY: Lexington
STATE: MA
                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 02421-4799
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Pred. No. 36;
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                                                                                                                                                                               ; TOPOLOGY: linear; MOLECULE TYPE: peptide US-09-144-925-9
Search completed: July 11, 2003, 12:02:12 Job time: 2.78794 secs
                                                                                                                    Query Match
Best Local Similarity 85.
Matches 6; Conservative
                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: CSHL96-03Z
TELECOMMUNICATION INFORMATION:
TELEPHONE: 781-861-6240
TELEPAX: 781-861-9540
                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 254 amino acids
                                                                                                                                                                                                                         STRANDEDNESS:
                                                            206 MMHTERK 212
                                                                                        4 MMHQERK 10
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                                                                                                                                    64.0%;
85.7%;
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Pred. No. 36;
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                                                                                                                                                Length 254
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
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Perfect score:
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    No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.

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length: 2000000000
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Match
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Gapop 10.0 , Gapext
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397.148 Million cell updates/sec
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: /cgn2_6/ptodata/1/pubpaa/JS07_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS06_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS06_PUBCOMB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS08_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS08_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS08_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS09_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS10_NEW_PUB.pep: *
: /cgn2_6/ptodata/1/pubpaa/JS10_PUBCOMB.pep: *
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US-10-1091-442-34

10 US-99-140-719-34

10 US-99-788-626-11

10 US-99-788-626-12

10 US-99-788-626-10

US-99-788-626-10

US-99-199-497-91

10 US-99-199-497-92

US-10-128-714-8591

10 US-99-814-835-8

10 US-99-841-835-10

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           Sequence 9, Appli
Sequence 34, Appl
Sequence 34, Appl
Sequence 6, Appli
Sequence 10, Appl
Sequence 10, Appl
Sequence 92, Appl
Sequence 92, Appli
Sequence 8591, Appli
Sequence 8, Appli
Sequence 8, Appli
Sequence 10, Appli
Sequence 10, Appli
Sequence 10, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                     Description
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US-10-091-442-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9, Application US/10091442 Patent No. US20020164711A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Ver

CURRENT APPLICATION DATA:

APPLICATION UNMBER: US/10/091,442

FILING DATE: 07-Mart-2002

CLASSIFICATION: CUDKNOWN>

PRIOR APPLICATION DATA:

APPLICATION DATA:

APPLICATION DATA:

PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                             MIGRA, Kenju
ISHIDA, No. US20020164711Aluhiro
KURIHARA, Tatsuya
YAMAICHI, Kozo
YAMAICHI, Kozo
YAMAGUCHI, No. US20020164711A1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: TSUJIMOTO, Masafumi
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-UN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-UL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-UL-1992
APPLICATION NUMBER: JP 6-067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                            STREET: P.O. Box 1404
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US-09-867-550-888
US-10-156-761-8516
US-99-765-272-196
US-99-765-2761-12080
US-99-925-299-934
US-09-925-299-934
US-09-925-299-934
US-09-815-242-13443
US-09-815-242-13640
US-09-815-242-13640
US-09-815-242-13640
US-09-815-242-13640
US-10-163-866-42
US-10-110-163-866-42
US-10-101-163-866-42
US-10-101-163-866-42
US-10-101-2865-210463
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US-09-934-070-8
US-10-157-031-267
US-09-776-191-64
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US-08-808-031A-40
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US-09-910-430-27
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                                                                                                                                                                                        Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 27, Appl
Sequence 40, Appl
Sequence 684, Appl
Sequence 81, Appl
Sequence 64, Appl
Sequence 64, Appl
Sequence 64, Appl
Sequence 6816, App
Sequence 12080, App
Sequence 12080, App
Sequence 934, App
Sequence 934, App
Sequence 934, App
Sequence 934, App
Sequence 13443, Ap
Sequence 13443, Ap
Sequence 13443, A
Sequence 11759, A
Sequence 41, Appl
Sequence 42, Appl
Sequence 41, Appl
Sequence 41, Appl
Sequence 21, Appl
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 9: SEQUENCE CHARACTERISTICS: LENGTH: 10 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tent No.
   PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: JP 6-
APPLICATION NUMBER: JP 6-
APPLICATION NUMBER: JP 6-
                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITLE OF
                                                                                                                FILING DATE: 14-JUL-1993
                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 001560-247 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: ATTORNEY/AGENT INF
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                                                                                                                                                                                                                                                                                                                                                                      RY: United States 22313-1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INVENTION:
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                           Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: McGowan,
                                                                                                                                                                                                                                                                                                                                                                                                                                             P.O. Box 1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TSUROUOKA, No. US20010026931A1uo NAKAZATO, Hiroshi
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YAMAGUCHI, No. US20010026931Alomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KURIHARA, Tatsuya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIURA, Kenju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHIDA, No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Burns, Doane, Swecker & Mathis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0026931A1
                                                                                                                                                                                                                               NUMBER: US/09/140,719
08-AUG-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 50; DB 9; 100.0%; Pred. No. 0.00028;
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                                                                                                                                US 08/091,028
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                             JP 6-067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US20010026931A1uhiro
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             stent No. US20020164711A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 00 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
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                             REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/10/091,442
                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                     ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
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10; Conser
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                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                 NAME: McGowan, Malcolm K.
                                                                                                                  APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/474,661
                                                                                                                                                                                                                                                                FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/140,719
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                                                                                                                                                      APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                       APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
TELEFAX: (703)
                                                                                                                                                                                                                            ILING DATE: 07-JUN-1995
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YAMAICHI, Kozo
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ISHIDA, No. US20020164711Aluhiro
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NAKAZATO, Hiroshi
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Pred. No. 0.00028;
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INFORMATION FOR SEQ ID NO:

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TOPOLOGY: linear

HOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 34:
US-10-091-442-34
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US-09-140-719-34
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Patent No. U
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                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
                TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: :
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                      APPLICATION NUMBER: JP 6
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
SEQUENCE CHARACTERISTICS:
                                                               REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
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                                                  TELEPHONE:
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US20010026931A1
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                                                                                                                       McGowan, Malcolm K.
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TSUROUOKA, NO. US20010026931Aluo
NAKAZATO, HIroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIURA, Kenju
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                                                    (703)
                                                                                                                                                      UMBER: JP 6-067339
04-MAR-1993
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                                                  836-6620
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; TYPE: PRT
; ORGANISM: Homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: Genbank ID No. US20020119531A1 g416132
US-09-988-975A-6
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Best Local Similarity 100.
Matches 10; Conservative
                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/988,975A
CURRENT FILING DATE: 2001-11-19
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PERL Program
SEQ ID NO 6
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/788,626
CURRENT FILING DATE: 2001-02-13
NUMBER OF SEQ ID NOS: 40
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID: NO 11
                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Bandman, Olga
APPLICANT: Lal, Preeti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                      Query Match
Best Local
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                                                         Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: IMPROVED ASSAY FOR PROTEIN TYROSINE TITLE OF INVENTION: PHOSPHATES FILE REFERENCE: 200125.401
                                                                                                                                                                                                                                                                                APPLICANT: Lal, Preeti G.
TITLE OF INVENTION: PROSTATE-ASSOCIATED PROTEASE ANTIBODY
FILE REFERENCE: PF-0227-2 CIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT ORGANISM: Homo sapiens
                                                                                                                                                                                            LENGTH: 235
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les 6; Conserv
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                        2 VAMMHQERK 10
                                                        Similarity 66. 6; Conservative
IAMMHLEMK 101
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                                                                      64.08;
                                                        Score 32; DB Pred. No. 60; 1; Mismatches
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Pred. No. 51;
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Pred. No. 0.019;
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                                                                                    Length 235;
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RESULT 7

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Best Local Similarity
----hes 6; Conserve
                                                                                                                                        RESULT 9
US-09-919-497-91
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                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens US-09-788-626-10
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                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 15

LENGTH: 279

TYPE: PRT

ORGANISM: Artificial Sequence
FEATURE:
                                                                                      GENERAL INFORMATION:
                                                                                                        Sequence 91, Application US/09919497 Patent No. US20020106662A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 15,
APPLICANT: MUTTER, GEORGE L.
TITLE OF INVENTION: PROCNOSTIC CLASSIFICATION OF ENDOMETRIAL CANCER
FILE REFERENCE: B0801/7225
CURRENT APPLICATION NUMBER: US/09/919,497
CURRENT FILING DATE: 2001-07-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: IMPROVED ASSAY FOR PROTEIN TYROSINE TITLE OF INVENTION: PHOSPHATES FILE REFERENCE: 200125.401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 09/404,017
PRIOR FILING DATE: 1999-09-23
PRIOR APPLICATION NUMBER: 60/101,867
PRIOR FILING DATE: 1998-09-25
NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT FILING DATE: 2001-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Tchaga, Grigory S.
APPLICANT: JOKhadze, George
TITLE OF INVENTION: Metal Ion Affinity Tags and Methods for
TITLE OF INVENTION: Using the Same
FILE REFERENCE: CLON056CIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Flint, Andrew J. APPLICANT: Cool, Deborah E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/858,332
CURRENT FILING DATE: 2002-07-02
                                                                                                                                                                                                                                                                                                                                                                                                     ENGTH: 310
                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                              206 MMHTERK 212
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85.7%;
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Pred. No.
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Pred. No.
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US-10-128-714-8591
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Best Local S
Matches 5
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SEQ ID NO 91
LENGTH: 318
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                                                                                                                                                                                                                                                                                                                                                            Sequence 8591, Application US/10128714 Publication No. US20030119013A1
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Best Local :
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                                                                                                                                                                     APPLICANT: Zamudio, Carlos
APPLICANT: Eroshkin, Alexey M
APPLICANT: Lemieux, Sebastien M
TITLE OF INVENTION: Identification of Essential Genes in Aspergillus fumigatus and
TITLE OF INVENTION: Methods of Use
FILE REFERENCE: 10182-018-999
                 PRIOR APPLICATION NUMBER: US 60/285,697
PRIOR FILING DATE: 2001-04-23
PRIOR APPLICATION NUMBER: US 60/287,066
PRIOR FILING DATE: 2001-04-27
PRIOR APPLICATION NUMBER: US 60/295,890
PRIOR FILING DATE: 2001-06-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Mutter, George L.
TITLE OF INVENTION: PROCNOSTIC CLASSIFICATION OF ENDOMETRIAL CANCER
FILE REFERENCE: BOBOL/7225
CURRENT APPLICATION NUMBER: US/09/919,497
CURRENT FILING DATE: 2001-07-31
                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/128,714
CURRENT FILING DATE: 2002-04-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/221,735 PRIOR FILING DATE: 2000-07-31
                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                       APPLICANT: Jiang, Bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/221,735 PRIOR FILING DATE: 2000-07-31
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APPLICATION NUMBER: US 60/303,899
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190 ALIHKERK 197
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5; Conservative
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                                                                                                                                                                                                                                                                                  Tishkoff, Daniel
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Pred. No.
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Pred. No.
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411 Hackensack Avenue, 4th Floor

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APPLICANT: Eroshkin, Alexey M
APPLICANT: Lemleux, Sebastien M
TITLE OF INVENTION: Identification of Essential Genes in Aspergillus fumigatus and
TITLE OF INVENTION: Methods of Use
FILE REFERENCE: 10182-018-999
CURRENT APPLICATION NUMBER: US/10/128,714
CURRENT FILING DATE: 2002-04-23
PRIOR APPLICATION NUMBER: US 60/285,697
PRIOR FILING DATE: 2001-04-27
PRIOR FILING DATE: 2001-04-27
PRIOR APPLICATION NUMBER: US 60/287,066
PRIOR APPLICATION NUMBER: US 60/295,890
PRIOR APPLICATION NUMBER: US 60/295,890
PRIOR APPLICATION NUMBER: US 60/303,899
PRIOR APPLICATION NUMBER: US 60/316,362
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US-09-841-835-8
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                                                                                            Sequence 8, Application US/09841835
Patent No. US20020076795A1
GENERAL INFORMATION:
APPLICANT: de Lange, Titia
APPLICANT: Smith, Susan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.1 SEQ ID NO 3591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3591, Application US/10128714 Publication No. US20030119013A1
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LENGTH: 370
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NUMBER OF SEQ ID NOS: 8603
SOFTWARE: Patentin version 3.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                                     TITLE OF INVENTION: A PROTEIN THAT BINDS TO TRF1 AND METHODS TITLE OF INVENTION: OF USE THEREOF
                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 75.
                                                                                                                                                                                                                                                                                                                                                   Match 62.0%;
Local Similarity 75.0%;
les 6; Conservative
                                                                                                                                                                                                                                                                            386 VAMRHKER 393
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Tishkoff, Daniel
Zamudio, Carlos
Klauber & Jackson
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75.0%;
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1; Mismatches
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Pred. No. 1.6e+02;
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US-09-815-242-10901
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                             FILE REFERENCE: ELITRA.011A
CURRENT APPLICATION NUMBER: US/09/815,242
CURRENT TELLING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR APPLICATION NUMBER: 60/291,078
PRIOR APPLICATION NUMBER: 60/207,727
PRIOR APPLICATION NUMBER: 60/207,727
PRIOR FILING DATE: 2000-05-28
PRIOR APPLICATION NUMBER: 60/242,578
PRIOR APPLICATION NUMBER: 60/242,578
PRIOR FILING DATE: 2000-10-23
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR APPLICATION NUMBER: 60/257,931
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                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Identification of Essential Genes TITLE OF INVENTION: Prokaryotes
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 673 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 201-487-5800 TELEFAX: 201-343-1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
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CTTY: Hackensack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Jackson Esq., David A.
REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 600-1-230 CIP1
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es .6; Conservative
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529 AVASLHPKRK 538
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Xu, H. Howard
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60.0%;
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60/269,308
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Pred. No. 3.3e+02;
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; TELEX: 133521
; INFORMATION FOR SEO ID NO: 1
; SEQUENCE CHARACTERISTICS:
; LENGTH: 949 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-09-841-835-10
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US-09-841-835-10
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; LENGTH: 718
; TYPE: PRT
; ORGANISM: Enterococcus faecalis
US-09-815-242-10901
                                                                  Query Match
Best Local Similarity 60.0
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 10, Application US/09841835 Patent No. US20020076795A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 62.0%;
Best Local Similarity 66.7%;
Matches 6; Conservative
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APPLICANT: de Lan
APPLICANT: Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2001-02-16
NUMBER OF SEQ ID NOS: 14110
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                   ATTORNEY AGENT INFORMATION:
NAME: Jackson Esq., David A.
REGISTRATION NUMBER: 26,742
REFERENCE/DOCKET NUMBER: 600-1-230 CIP1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-487-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: de Lange, Titia
APPLICANT: Smith, Susan
TITLE OF INVENTION: A PROTEIN THAT BINDS TO TRF1 AND METHODS
TITLE OF INVENTION: OF USE THEREOF
NUMBER OF SEQUENCES: 12
CORRESPONDENCES ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/196,387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/841,835
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529 AVASLHPKRK 538
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411 Hackensack Avenue, 4th Floor
                                                                                                                                                                                                                                                                                    201-343-1684
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Search completed: July 11, 2003, 12:37:35

Job time : 3.93139 secs

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Post-processing: Minimum Match 0%
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Listing first 45 s
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Maximum DB
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Perfect score:
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Match
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50
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PIR_73:*
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A40721
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A36065
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S49208
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E70912
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A47373
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                      glycoprotein/polys
hypothetical prote
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probable arylsulfa
antithrombin III -
neuroblast prolife
hypothetical prote
probable methylgal
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RESULT 2
.H86177
.H86177
.H96176
.H96177
.H96177
.H96177
.H96189: Arabidopsis thaliana (mouse-ear cross)
C;Species: Arabidopsis thaliana (mouse-ear cross)
C;Date: 02-Mar-2001 #sequence\_revision 02-Mar-2001 #text\_change 31-Mar-2001
C;Accession: H86177
R;Theologis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alon
Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar,
ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim,
C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marzia
Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallo
ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Berence number: A86141; MUID:21016719; PMID:11130712
A;Accession: H86177
A;Status: preliminary
A;Marchiel \*\*Tope\*\* DNA\*\*

β Q

206

AVAMMHQ

212

A;Molecule type: DNA
A;Residues: 1-578 <STO>
A;Cross-references: GB:AE005172; NID:g2494130; PIDN:AAB80639.1; GSPDB:GN00141

| 148 2 T74628 hypothetical prot 216 2 AB0648 resolvance Phosphate 1217 2 P83502 phosphate transported 14 217 2 P83502 phosphate transported 15 2 AB0287 phosphate 15 2 AB0287 phosphate 16 2 AB0287 phosphate 16 2 AB0287 phosphate 17 AB028 phosphate 17 AB028 phosphate 17 AB028 phosphate 18 2 C69148 phosphate 17 AB028 phosphate 18 2 C69148 phosphate 18 2 C691 | 31 62 0 138 |
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zinc finger protein wizl - mouse (Species: Mus musculus (house mouse) (C;Species: Mus musculus (house mouse) (C;Date: 22-Jan-1999 #sequence_revision 22-Jan-1999 #text_change 05-Nov-1999 (C;Accession: T00248 R;Matsumoto, K.; Ishii, N.; Yoshida, S.; Shiosaka, S.; Wanaka, A.; Tohyama, M. submitted to the EMBL Data Library, March 1998 A;Description: Molecular cloning and distinct developmental expression pattern of splice A;Reference number: Z14130
                     RESULT 5
H70234
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A; Residues: 1-602 <STO>
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A; Map position:
                                                                                                                                                                                                                                                                                 A; Experimental source: brain
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                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary; translated from GB/EMBL/DDB:
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 DNA
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Similarity 60.0%;
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                                                                                                                                                                                    Score 35;
Pred. No.
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Pred. No.
Lyme disease spirochete plasmid G/lp28-2
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RESULT 7
E35270
                                                                                                                   C;Accession: E35270
R;Chevalier, C.; Saillard, C.; Bove,
J. Bacteriol. 172, 2693-2703, 1990
                                                                                                                                                                           6-phosphofructokinase (EC 2.7.1.11) - Spiroplasma citri
N,Alternate names: phosphofructokinase 1; phosphohexokinase
C;Species: Spiroplasma citri
C;Date: 17-Aug-1990 #sequence_revision 14-Jul-1994 #text_change
A; Molecule type: I
A: Residues: 1-327
                                     A; Reference number: A; Accession: E35270
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA Res. 8, 205-213, 2001
A; Title: Complete Genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sas
Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 30-Jun-2002 C;Accession: AD2052
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A; Title: Genomic sequence of a Lyme disease spirochaete,
A; Reference number: A70100; MUID:98065943; PMID:9403685
A; Accession: H70234
                                                                                                   A;Title:
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A; Residues: 1-275 <KLE>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Borrelia burgdorferi (Lyme disease spirochete)
C;Date: 13-Feb_1998 #sequence_revision 13-Feb-1998 #text_change 08-Oct-1999
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Best Local :
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                                                         A35270; MUID:90236934; PMID:2139649
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66.7%;
                                                                                               nucleotide sequences of the Spiroplasma
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Pred. No.
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Pred.
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M.; Yamada, M.; Yasuda, I
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A;Cross-references: GB:M31161; NID:g152884; PID:g152889
A;Note: the authors translated the codon GCT for residue 195 a C;Genetics:
A;Genetic code: SGC3
C;Superfamily: 6-phosphofructokinase; 6-phosphofructokinase 1
C;Keywords: ATP; phosphotransferase
F;5-280/Domain: 6-phosphofructokinase 1 homology <6PF1>
                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-337 <ARN>
A; Cross-references: GB: AE001623; GB: AE001363;
A; Cross-references: GB: AE01623; GB: AE001363;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R:Kalman, S.; Mitchell, W.; Marathe, R.; Lammel, Nature Genet. 21, 385-389, 1999
A;Title: Comparative genomes of Clamydia pneumoni A;Reference number: A72000; MUID:99206606; PMID:1
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                                                                                                                   A; Gene: ruvB
C; Superfamily:
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A; Residues: 1-337 <STO>
A; Cross-references: GB:BA00000B; NID:g8978762; PIDN:BAA98598.1;
A; Experimental source: strain J138
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C; Superfamily:
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Best Local :
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Best Local :
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66.7%;
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55.6%;
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                                                            Score 33; DB
Pred. No. 29;
4; Mismatches
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Pred. No.
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Pred. No.
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A81586
A; Reference number: $12049;
A; Accession: $12053
A; Status: preliminary
A; Molecule type: mRNA
                                                                                                                     protein-tyrosine-phosphatase (EC 3.1.3.48), receptor type epsilon precursor
C;Species: Homo sapiens (man)
C;Date: 10-Sep.1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
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                                                            C;Accession: $12053
R;Krueger, N.X.; Streuli, M.; Sait EMBO J. 9, 3241-3252, 1990
A;Title: Structural diversity and
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Holliday junction DNA helicase RuvB CP0365 [imported] - Chlamydophila pneumoniae C;Specles: Chlamydophila pneumoniae, Chlamydia pneumoniae C;Date: 31-Mar-2000 #sequence_revision 31-Mar-2000 #text_change 19-May-2000 C;Accession: A81886 R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; H
                                                                                                                                                      C; Superfamil
C; Keywords:
                                                                                                                                                                                                                                                                                             R; Valleley, E.M.A.; Mueller, U.; Ferguson, M.W.J.; Sharpe, I gene 119, 221-228, 1992
A; Title: Cloning and expression analysis of two ZFY-related A; Reference number: PC1143; MUID:93012990; PMID:1398103
A; Accession: PC1143
                                                                                                                                                                                                                                                                                                                                                                                                                finger protein Zfc - American alligator (fragment)
C;Species: Alligator mississippiensis (American alligator)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change
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C; Superfamily:
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A; Residues: 1-395 <VAL>
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                                                                                                                                                    Superfamily: zinc finger protein ZFP-36; LIM metal-binding repeat homology Keywords: DNA binding; zinc finger
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A; McCessium: JCL263
A; McCessium: JCL263
A; McCessium: 1-796 <MORN
A; Residues: 1-796 <MORN
A; Residues: 1-796 <MORN
A; Experimental source: kidney
A; Experimental source: kidney
A; Note: the authors translated the codon TCC for residue 788 as Ala
R; Hashimoto, N; Zhang, W.R.; Goldstein, B.J.
Blochem, J. 284, 569-576, 1992
Blochem, J. 284, 569-576, 1992
Blochem, J. 284, 569-576, 1992
A; Feference number: $23126; MUID:92287069; PMID:1599438
A; Reference number: $23126; MUID:92287069; PMID:1599438
A; Status: preliminary
A; McCession: $23233
A; Status: preliminary
A; McCelle type: mRNA,
A; Residues: 254-267, 'I',269-354, 'T',356-501 <HAS>
R; Zhang, W.R.; Goldstein, B.J.
Biochem, Biophys, Res. Commun. 178, 1291-1297, 1991
A; Feference number: JH0450; MUID:91337074; PMID:1651716
A; Reference number: JH0450; MUID:91337074; PMID:16517716
A; Reference number: JH0450; MUID:9121797, J1991
A; Reference number: JH0450; MUID:9121877, J1991
A; Reference number: JH0450; 
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C;Function:
A;Description: catalyzes the hydrolysis of peptidyl-phosphotyrosine to release C;Superfamily: protein-tyrosine-phosphatase, receptor type alpha; leukocyte con C;Keywords: phosphoprotein; phosphoric monoseter hydrolase; receptor; transmemi F:1-19/Domain: signal sequence #status predicted <STG>F:20-700/Product: protein-tyrosine-phosphatase, receptor type epsilon #status | F:447-63/Domain: transmembrane #status predicted <TMN>F:78-698/Domain: leukocyte common antigen cytosolic domain homology <LAC>F:159-383/Domain: protein-tyrosine-phosphatase homology <PTP1>F:335/Active site: Cys (phosphocysteine intermediate) #status predicted F:341/Binding site: substrate phosphate (Arg) #status predicted F:341/Binding site: Systems phosphate (Arg) #status predicted F:369/Active site: Cys (phosphocysteine intermediate) #status predicted F:369/Active site: Cys (phosphocysteine intermediate) #status predicted F:369/Active site: Cys (phosphocysteine intermediate) #status predicted
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F;166-796/Domain: intracellular #status predicted <TMN>
F;178-794/Domain: leukocyte common antinon north
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
C;Accession: JC1285; S23253; JH0450
R;Moriyama, T.; Fujiwara, Y.; Imai, E.; Takenaka, M.; Kawanishi, S.; Inoue, T.;
Blochem. Blophys. Res. Commun. 188, 34-39, 1992
A;Title: CDNA cloning of rat Lpp, a receptor like protein tyrosine phosphatase, A;Reference number: JC1285; MUID:93038682; PMID:1417854
A;Accession: JC1285
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A;Cross-references:
C;Genetics:
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s: GB:X54134; NID:g35791; PIDN:CAA38069.1;
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A; Molecule type: mRNA
A; Residues: 651-756 (+HE2)
A; Cross-references: EMBL: Z23055; NID: g438147; PIDN: CAA80590.
A; Cross-references: EMBL: Z23055; NID: g438147; PIDN: CAA80590.
A; Sap, J.; D'Eustachio, P.; Givol, D.; Schlessinger, J.
Proc. Natl. Acad. Sci. U.S.A. 87, 6112-6116, 1990
A; Title: Cloning and expression of a widely expressed recept.
A; Reference number: A36004; MUID: 90349565; PMID: 2166945
A; Accession: A36004
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A; Molecule type: mRNA
A; Residues: 1-267, 'Y', 305-829 < MA2>
A; Residues: 1-267, 'Y', 305-829 < MA2>
A; Cross references: GB:M3603; GB:M33671
A; Closs references: GB:M3603; GB:M3671
A; March Hertog, J.; Pals, C.E.G.M.; Jonk, L.J.C.; Kruijer, W.
Biochem. Biophys. Res. Commun. 184, 1241-1249, 1992
A; Title: Differential expression of a novel murine non-receptor
A; Reference number: JH0609; MUID:92272714; PMID:1590786
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A; Residues: 1-829 <MA1>
A; Cross-references: GB:M36033;
A; Note: the authors translated
A; Accession: A35501
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A;Note: sequence extracted from NCBI backbone (NCBIN:13: A;Note: sequence extracted from NCBI backbone (NCBIN:13: A;Note: Sequence extracted from NCBI backbone (NCBIN:13: A;Matthews, R.J.; Cahir, E.D.; Thomas, M.L. Proc. Natl. Acad. Sci. U.S.A. 87, 4444-4448, 1990
A;Title: Identification of an additional member of the parameters of the para
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A; Molecule type: mRNA
A; Residues: 322-325 'G', 327-356 <DEN>
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A; Residues: 1-230, 'A; Cross-references:
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A;Accession: S40286
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A; Residues: 1-829 <WON>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein-tyrosine-phosphatase (EC 3.1.3.48), receptor type alpha precursor - mouse N;Alternate names: leukocyte common antigen-related protein LRP; PTPTY28; receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
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                                                                                     A; Molecule type: mRNA
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                                          1-230,'L',232-267,'Y',305-410,'S',412-829
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85.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  not shown
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Pred. No.
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PMID:2166945
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Query Match
Best Local Similarity
Thes 6; Conserve
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A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A;Reference number: A86141; MUID:21016719; PMID:11130712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: C86399

R;TheoLogis, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso. Chin, C.W.; Chnng, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K. ansen, N.F.; Hughes, B.; Hulzar, L.

Nature 408, 816-820, 2000
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F:167-829/Domain: Intracellular #status predicted <TMM>
F:167-829/Domain: Intracellular #status predicted <TMM>
F:167-827/Domain: leukocyte common antigen cytosolic domain homology <LAC>
F:585-807/Domain: protein-tyrosine-phosphatase homology <PTP>
F:21,47,51,68,80,86,104,124/Binding site: carbohydrate (Asn) (covalent) #status predicted F:469/Active site: Cys (phosphocysteine intermediate) #status predicted F:475/Binding site: substrate phosphate (Arg) #status predicted F:759/Active site: Cys (phosphocysteine intermediate) #status predicted F:759/Active site: substrate phosphate (Arg) #status predicted
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A; Residues: 358-467 < YIA>
C; Genetics:
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C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001
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C; Function:
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                                                                                                                                                                                                                                                 A; Map position: 1
                                                                                                                                                                                                                                                                                     A;Gene:
                                                                                                                                                                                                                                                                                                                                           A;Cross-references: GB:AE005172; NID:g9802545; PIDN:AAF99747.1; GSPDB:GN00141
                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-229 <STO>
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A;Accession: C86399
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24 AVATTHOOKK 33
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  of hits satisfying chosen parameters:
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length: 2000000000
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50
1 AVAMMHQERK 10
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Gapop 10.0 ,
 112892 seqs, 41476328 residues
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  GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd
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K6PF_HUMAN
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PTPR_HUMAN
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CHUR_BACTI
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MGLA_TREPA
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TSHB_LAMGL
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KPR1_HUMAN
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KRR1_HUMAN
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GAL1_STACA
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Q03348 rattus norv
P18052 mus musculu
P89116 spodoptera
Q47334 escherichia
Q47334 escherichia
Q47334 escherichia
Q47334 escherichia
Q47334 escherichia
Q47334 escherichia
Q4734 escherichia
Q56342 treponema p
P17412 wolinella s
P1843 homo sapien
P98072 bos taurus
P51162 drosophila
P46940 homo sapien
Q91kf1 mus musculu
P01223 bos taurus
Q28376 equus cabal
P79357 lama glama
P4124 sus scrofa
P09329 homo sapien
P11908 homo sapien
P11908 homo sapien
Q55271 homo sapien
Q55271 homo sapien
Q55275 homo sapien
Q55276 mus musculu
Q9y606 homo sapien
Q69014 zymomonas m
P45527 escherichia
Q9ph05 dmus musculu
Q9y606 homo sapien
                                                                                                                                                                                                                                075635 homo sapien
P20275 spiroplasma
Q9z8f3 chlamydia p
P23469 homo sapien
                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                        5 spiroplasma
3 chlamydia p
9 homo sapien
8 rattus norv
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| SUV3_DROME | ENTK_MOUSE | ENTK_PIG | ENTK_HUMAN         | CHB_VIBHA | SYA_YERPE | ER24_SEPLY | ER24_FUSSO | ANT3_BOVIN | RT65_MYXXA | SAHH_PYRAB        | TRUA_MOUSE         |  |
|            |            |          | P98073 homo sapien |           |           |            |            |            |            | Q9uyk5 pyrococcus | Q9wu56 mus musculu |  |

## ALIGNMENTS

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMBL; D88575; BAA31232.1; EMBL; AR027866; AAC64506.1; HSSP; P05619; 1HLE. Genew; HGNC:13902; SERPINB7. MIM; 603357; InterPro; IPR000215; Serpin. Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1. PROSITE; PS00284; SERPIN; 1. | This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch). | J. Clin. Invest. 102:828-836(1998).  FUNCTION: Might function as an inhibitor of Lys-specific proteases. Might influence the maturation of megakaryocytes via its action as a serpin.  SIBCELLULAR LOCATION: Cytoplasmic (By similarity).  TISSUE SPECIFICITY: Predominantly expressed in mesangial cells.  SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY. | SEQUENCE FROM N.A. TISSUE-Mesangial cells; MEDLINE-98376492; PubMed-9710452; Miyata T., Nangaku M., Suzuki D., Inagi R., Uragami K., Sakai H., Okubo K., Kurokawa K.; "A mesangium-predominant gene, megsin, is a new serpin upregulated in IqA nephropathy."; | SEQUENCE FROM N.A.  MEDLINE-97326116; PubMed-9182567; TSUJIMOTO M., TSUTUOKA N., IShida N., Kurihara T., Iwasa F., TSUJIMOTO M., TSUTUOKA N., IShida N., Katsuragi N., Adachi M., Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M., Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K., Nakanishi T., Nakazato H., Teramura M., Mizoguchi H., Yamaguchi N.; "Purification, cDNA cloning, and characterization of a new serpin with megakaryocyte maturation activity."; J. Biol. Chem. 272:15373-15380(1997). | Homo sapiens (Human). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCBI_TaxID-9606; [1] | LT 1 HUMAN STANDARD; PRT; 380 AA. SPB7_HUMAN STANDARD; PRT; 380 AA. O75635; 15-JUN-2002 (Rel. 41, Created) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update) Megsin (TP55) (Serpin B7). SERPINB7. |

206 VAMLHQAQK 214

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K6PF_SPICI
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Best Local :
                                                                                                                                                                                                                                                                                                               le Dantec L.;
Submitted (SSP-1997) to the EMBL/GenBank/DDBJ databases.
-:- CATALYTIC ACTIVITY: ATP + D-fructose 6-phosphate - ADP
fructose 1,6-bisphosphate.
-:- PARHWAY: KEY CONTROL STEP OF GLYCOLYSIS.
-:- SUBGULIT: HOMOTETRAMER (BY SIMILARITY).
-:- SUBGELLGUAR LOCATION: Cytoplasmic (By similarity).
-:- SIMILARITY: BELONGS TO THE PHOSPHOFRUCTOKINASE FAMILY.
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ACT_SITE
SEQUENCE
                                                                           PRINTS; PR00476; PHFRCTKINASE.
PRODOM; PD000707; PPFruckinase; 1.
PROSITE; PS00433; PHOSPHOFRUCTOKINASE;
Kinase; Transferase; Glycolysis.
SEQUENCE 327 AA; 35197 MW; 19D9D471
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P20275;
                                                                                                                                                                    HSSP;
                                                                                                                                                                                          EMBL; AF012877; AAB69998.1;
                                                                                                                                                                                                                                         the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-ATCC 27556 /
                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Organization and nucleotide sequences of the Spiroplasma citri genes for ribosomal protein S2, elongation factor Ts, spiralin, phosphofructokinase, pyruvate kinase, and an unidentified protein."; J. Bacteriol. 172:2693-2703(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-ANCC 27556 / R8A2;
MEDLINE-90236934; PubMed-2139649;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bacteria; Firmicutes; Mollicutes; Spiroplasmataceae; Spiroplasma.
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01-FEB-1996 (Rel. 33,
16-OCT-2001 (Rel. 40,
6-phosphofructokinase
                                                                                                                                           Pfam;
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E 347 348 REACT
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InterPro;
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MEDINE-20150255; PubMed-10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg
White O., Hickey E.K., Peterson J., Utterback T., Berry
Linher K., Weidman J., Khouri H., Craven B., Bowman C.,
Linher K., Weidman J., Edword R., Kolonay J., McClarty G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shirai M., Hirakawa H., Kimoto M., Tabuchi M., Kishi
Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa
"Comparison of whole genome sequences of Chlamydia p
from Japan and CWL029 from USA.";
Nucleic Acids Res. 28:2311-2314(2000).
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MEDLINE=99206606; PubMed=10192388;

Kalman S., Mitchell W., Marathe R., I
Olinger L., Grinwood J., Davis R.W.,

"Comparative genomes of Chlamydia pne
Nat. Genet. 21:385-389(1999).
                                                                                                                                                                                                                                                                                                                                                                           between the Swiss Institute of Bloinformat the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed.
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Nucleic Acids Res. 28:1397-1406(2000).
                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (S or send an email to license@isb-sib.ch).
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16-OCT-2001 (Rel. 40, Last anno
Holliday junction DNA helicase
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Eisen J., Fraser C.M.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUNCTION: THE RUVA-RUVB COMPLEX IN THE PRESENCE OF ATP RENAPUL CRUCIFORM STRUCTURE IN SUPERCOILED DNA WITH PALINDROMIC SEQUE INDICATING THAT IT MAY PROMOTE STRAND EXCHANGE REACTIONS IN HOMOLOGOUS RECOMBINATION. RUVAB IS AN HELICASE THAT MEDIATES HOLLIDAY JUNCTION MIGRATION BY LOCALIZED DENATURATION AND REANNELING (BY SIMILARITY).

SUBUNIT: FORMS A COMPLEX WITH RUVA (BY SIMILARITY).
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CP0365; -.
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TIGR00635; ruvB;
                            SOS response;
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AAA_ATPase_centr
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                               recombination; Helicase;
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K., Bass
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IDE PTPE, H
AC P23469
DC 01-NOV
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DT 15-JUN
DE PERSILE
OS HOROSIT
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CONFLICT
SEQUENCE
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P23469;
            DOMAIN
DOMAIN
ACT_SITE
ACT_SITE
                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@fisb-sib.ch).
                                                                         TRANSMEM
DOMAIN
                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tyrosine phosphatases.";
EMBO J. 9:3241-3252(1990).
-I- CATALYTIC ACTIVITY: Protein tyrosine phosphate + H(2)O - protein tyrosine + phosphate.
-I- SUBCELLULAR LOCATION: Type I membrane protein.
-I- SIMILARITY: CONTAINS 2 PROTEIN-TYROSINE PHOSPHATASE DOMAINS
                                                                                                                                                                              PROSITE; PS00383; TYR_PHOSPHATASE_1; 2
PROSITE; PS50056; TYR_PHOSPHATASE_2; 2
PROSITE; PS50055; TYR_PHOSPHATASE_PTP;
                                                                                                                                                                                                                                                                                                                                              EMBL; X54134; CAA38069.1; PIR; S12053; S12053.
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01.NOV-1991 (Rel. 20, Created)
01.NOV-1991 (Rel. 20, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Protein tyrosine phosphatase epsilon precursor
   CARBOHYD
                                                                                                       DOMAIN
                                                                                                                                                                Glycoprotein;
                                                                                                                                                                                                                          PRINTS; PR00700; PRTYI
SMART; SM00194; PTPC;
                                                                                                                                                                                                                                          Pfam; PF00102; Y_phosphatase; 2. PRINTS; PR00700; PRTYPHPHTASE.
                                                                                                                                                                                                                                                                    InterPro; IPR000387; TYR_phosphatase.
InterPro; IPR000242; Tyr_PP.
                                                                                                                                                                                                                                                                                                    MIM; 600926;
                                                                                                                                                                                                                                                                                                                HSSP; P18052; 1YFO.
Genew; HGNC:9669; PTPRE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Krueger N.X., Streuli M., Saito H.; 
"Structural diversity and evolution 
tyrosine phosphatages ":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-91006018; PubMed-2170109;
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Metazoa; Chordata; C
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55.6%;
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T -> A /TN ppr
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Pred. No. 11;
                                       POTENTIAL.

CYTOPLASMIC (POTENTIAL).

PROTEIN-TYROSINE PHOSPHAY

PROTEIN-TYROSINE PHOSPHAY
                                                                                                      EXTRACELLULAR
                                                                                                                    PROTEIN-TYROSINE PHOSPHATASE
                                                                                                                                                                Hydrolase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; | Catarrhini; Hominidae;
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D591B593F342EA2F CRC64;
              SIMILARITY.
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(GLCNAC.
                                                                                                                                                2;
Phosphorylation;
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                                                                                                      (POTENTIAL)
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PHOSPHATASE
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.) (POTENTIAL).
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                                                                                                                                                                Repeat;
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                                                                                                                                     DOMAIN
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Pfam; PF00102; Y_phosphatase; 2. PRINTS; PR00700; PRTYPHPHTASE. SMART; SM00194; PTPC; 2.
                                                                                                                                                                                                                                                                                                                          EMBL; L01702; AAA41983.1; ...
HSSP; P18052; 1YFO.
InterPro; IPR000387; TYR_phosphatase.
InterPro; IPR000242; Tyr_pp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Moriyama T., Fujiwara Y., Imai E., Takenaka M., Ka Inoue T., Noguchi T., Tanaka T., Kamada T., Ueda N. "CDNA cloning of rat LRP, a receptor like protein phosphatase and evidence for its gene regulation mesangial cells.";
Biochem. Biophys. Res. Commun. 188:34-39(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            alpha).
PTPRA OR LRP.
Rattus norvegicus (Rat).
                                                                                                                                                                                                                               PROSITE; PS00383; TYR_PHOSPHATASE_1; 2. PROSITE; PS50056; TYR_PHOSPHATASE_2; 2. PROSITE; PS50055; TYR_PHOSPHATASE_PTP; 2.
                                                                                                                                                                                                                                                                                                                                                                                                              modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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01-FEB-1994 (Rel.
15-JUN-2002 (Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                               Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-93038682; PubMed-1417854;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SÜBCELLULAR LOCATION: Type I membrane protein. SIMILARITY: CONTAINS 2 PROTEIN-TYROSINE PHOSPHATASE DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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                                                                                                                                                                                                                                                                                                                                                                                                                            non-profit institutions as long as its content and this statement is not removed. Usage by an requires a license agreement
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 28, Last sequence update)
. 41, Last annotation update)
phosphatase alpha precursor
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66.7%;
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Protein tyrosine phosphate +
                                              PROTEIN-TYROSINE F
PROTEIN-TYROSINE F
BY SIMILARITY.
BY SIMILARITY
N-LINKED
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Pred. No.
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D096BCADCEA65708 CRC64;
                                                                                                                                              PROTEIN-TYROSINE PHOSPHATASE EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                              Hydrolase; Phosphorylation; Repeat;
                                                                                                                 CYTOPLASMIC (POTENTIAL)
                                                                                                                               EXTRACELLULAR POTENTIAL.
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(GLCNAC.
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24;
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a N.;
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(POTENTIAL).
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p18052; Q61808;
01-NOV-1990 (Rel. 16, Created)
01-FEB-1996 (Rel. 33, Last sequence upda
15-JUN-2002 (Rel. 41, Last annotation up
Protein-tyrosine phosphatase alpha precualpha) (LCA-related phosphatase).
pTPRA OR LRP OR PTPA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Ro
NCBI_TaxID=10090;
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SEQUENCE
                                                                                                    Bilwes A.M., den Hertog J., Hunter T., No "Structural basis for inhibition of recep phosphatase-alpha by dimerization."; Nature 382:555-559(1996).
                                                                                                                                                                                                                                                                                           STRAIN-BALB/c; TISSUE-Brain;
MEDLINE-95134232; PubMed-7832766;
Hendriks W. Schepens J., Brugman C., Ze
"A novel receptor-type protein tyrosine
catalytic domain is specifically express
Blochem. J. 305:499-504(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A., ALTERNATIVE SPLICIN STRAIR-C57BL/6 X DBA/2; MEDLINE-90280391; PubMed-2162042; Matthews R.J., Cahir E.D., Thomas M.L.; "Identification of an additional member
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOUSE
            This
                                                                                                                                                                                        "Identification and typing of members obosphatase gene family expressed in myol. Biol. Rep. 16:241-248(1992).
                                                                                                                                                                                                                                             STRAIN=BALB/c; TISSUE=Brain; MEDLINE=93086603; PubMed=1454056;
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phosphatase
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                               tyrosine + phosphate.
SUBCELLULAR LOCATION: Type I membrane protein.
ALTERNATIVE PRODUCTS: 2 ISOFORMS; A LONG FORM (SHOWN HERE) A A SHORT FORM; ARE PRODUCED BY ALTERNATIVE SPLICING.
TISSUE SPECIFICITY: WIDELY EXPRESSED.
SIMILARITY: CONTAINS 2 PROTEIN-TYROSINE PHOSPHATASE DOMAINS.
SWISS-PROT entry is copyright.
een the Swiss Institute of Bio
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expressed in mouse brain.";
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01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Caspase-1 precursor (EC 3.4.22.-).
Spodoptera frugiperda (Fall armyworm).
Spodoptera; Metazoa; Arthropoda; Mandibulata; Panc Insecta; Pecrygota; Neoptera; Endopterygota; Lepi Ditrysia; Noctuoidea; Noctuidae; Amphipyrinae; Sp
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MEDLINE-97153084; PubMed-899805;
Ahmad M., Srinivasula S.M., Wang
Alnemri E.S.;
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        "Spodoptera
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InterPro; IPR000242; Tyr_PP
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BL; Z23055; CAA80590.1;
BL; Z33055; CAA80590.1;
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nuclear
        frugiperda caspase-1,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  baculovirus antiapoptotic protein p35.";
J. Biol. Chem. 272:1421-1424(1997).
-I. FUNCTION: INVOLVED IN THE ACTIVATION CASCADE OF CASPASES
-I. FUNCTION: INVOLVED IN THE ACTIVATION (BY SIMILARITY). INHIBITED PRESPONSIBLE FOR APOPTOSIS EXECUTION (BY SIMILARITY). INHIBITED PRESPONSIBLE FOR APOPTOTIC PROTEIN P35. CLEAVES P35 AND NUCLEAR IMMUNOPHILIN FKBP46.
-I. SUBUNIT: HETERODIMER OF A 19/18 kDa (P19/18) AND A 12 kDa (P12)
EMBL; U81510; AAC47442.1; -. HSSP; P42574; 1CP3. MEROPS; C14.015; -.
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                                                                                                    Bacteria; Proteobacteria; Escherichia.
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30-MAY-2000 (Rel. 39,
30-MAY-2000 (Rel. 39,
Polysialic acid capsul
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irPro; IPR002138; ICE_p10.
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ir; SM00115; CASC; 1.
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CASPASE-1 SUBUNIT P12.
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InterPro; IPR000644; CBS_domain.
InterPro; IPR004800; Kpsf.
InterPro; IPR001347; SIS.
Pfam; PF00571; CBS; 2.
Pfam; PF01380; SIS; 1.
SMART; SM00116; CBS; 2.
TIGRFAMS; TIGR00393; kpsf; 1.
                                                                                                                                                                                                                                                                                    Cheng Q., Hwa V., Salyers A.A.;

"A locus that contributes to colonization of the intestinal tract Bacteroides thetaiotaomicron contains a single regulatory gene (che that links two polysaccharide utilization pathways.";

"Bacteriol. 174:7185-7193(1992).

"I Bacteriol. 174:7185-7193(1992).

"I BACTION: LINKS THE HEPARIN AND THE CHONDROITIN SULFATE OF INTESTINAL TRACT. MAY HAVE A REGULATORY FUNCTION. REQUIRED FOR THE EXPRESSION OF CHONDRO-6-SULFATASE.

"IS SIMILARITY: BELONGS TO THE ASLB/ATSB FAMILY.
                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (see http://www.isb-sib.ch/an or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X95264; CAA64561.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the the European Bioinformatics Institute. There are no require by non-profit institutions as long as its content
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-93054330; PubMed-1429442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chondro-6-sulfatase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATP-binding; Repeat; NP_BIND 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-46-1, and CS3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteroides thetaiotaomicron.
                                            PIR; A47014; A47014
                                                               EMBL; L00678; AAA22908.1;
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5; Conserv
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280
327 i
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(Rel. 36, Last annotation updat
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268
327
327
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BS domain.

BS domain.

ATP (POTEN...

BS 1.

CBS 1.

CBS 2.

CBS 2.

CBS 2.

DOC9A38DFB1E02C4 CRC64;

CBS 3.

DB 1; Length 3
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55.6%;
Activator MW; 43C4F
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Pred. No. 17;
3; Mismatches
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MBL outstation
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                                                                                                                                                                                                                         outstation
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43C4BE4018AA3735 CRC64;

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RESULT 10
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                                                  Abril J.F., Agbayani A., An H.-J., Andrews Pfannkoch C., Baldwin D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Durbin K.J., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
Dodson K., Doup L.E., Downes M., Dugan-Roccha S., Dunkov B.C., Dunn P.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fletschmann W.,
RA Fosler C., Gapriellan A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Wei M.-H., Ibegwam C.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Llu X., Mattel B., McIntosh T.C., McLeod M.P., McPherson D.,
RA Mannt C. M. Mattel B., McIntosh T.C., McLeod M.P., McPherson D.,
Markulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
Nannt C. M. Marthy D., Marryker M., Marten D., Marryker M.,
Nannt M., Malush R., Marryker M., Marryker M.,
Nannt M., Malush R., Marryker M., Marryker M.,
Nannt M., Marten D., McLeod M.P., McPherson D.,
Nannt M., Marryker M., Marryker M., Marryker M., Marryker M.,
Nannt M., Marryker M., McLeod M.P., McPherson D.,
Nannt M., Marryker M., McLeod M.P., McPherson D.,
Nannt M., Marryker M., McLeod M.P., McLeod M.P., McLeod M.P.,
Nannt M., Marryker M., McLeod M.P., McLeod
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Best Local
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MEDLINE-20196006; PubMed-10731132;

Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,

Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,

George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,

Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,

Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.

Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Celniker S.E., Agbayani A., Arcaina T.T., Baxter E., Blazej R.G., Butenhoff C., Champe M., Chavez C., Chew M., Ciesiolka L., Doyle C.M. Farfan D.E., Galle R., George R.A., Harris N.L., Hoskins R.A., Houston K.A., Hummasti S.R., Karra K., Kearney L., Kim E., Lee B., Howits S., Li P., Lomotan M.A., Mazda P., Moshrefi A.R., Moshrefi M., Nixon K., Pacleb J.M., Park S., Pfeiffer M., Poon L., Punch E., Sequeira A., Sethi H., Snir E., Svirskas R.R., Twomey B., Wan K.H., Welnburg T., Zhang R., Zieran L.L., Rubin G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANA_DROME STANDAI
Q26307; Q9V524;
16-OCT-2001 (Rel. 40,
Merkulov G., Mil
Mount S.M., Moy
Nelson D.R., Nel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Weinburg T., Zhang R.,
Submitted (DEC-1998) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ebbens A.J., Garren H., Cheyette B.N.F.
"The Drosophila anachronism locus: a inhibits neuroblast proliferation."; Cell 74:15-27(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Muscomorpha; Ep
NCBI_TaxID=7227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Mandibulata;
Insecta; Pterygota; Neoptera; Endopterygota;
Muscomorpha; Ephydroidea; Drosophilidae; Dros
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANA OR CG8084.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-Berkeley;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Eye imaginal disk;
MEDLINE=93327423; PubMed=7916657;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-OCT-2001 (Rel. 40, Last sequence up
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Murphy B.,
1 K.A., Nixon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   precursor
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66.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      an L.L., Rubin G.M.;
EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 32; DB Pred. No. 21; 1; Mismatches
   Murphy L., Mu
n K., Nusskern
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B.N.R.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ata; Pancrustacea; Hexapoda;
ota; Diptera; Brachycera;
Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         æ
                                    Muzny D.M.,
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                                                           MEDLINE-97080510; PubMed-8921855; MEDLINE-97080510; PubMed-8921855; MEDLINE-97080510; PubMed-8921855;
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-I- FUNCTION: PART OF THE BINDING-PROTEIN-DEPENDENT TRANSPORT SYSTEM
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Venter J.C.;
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SUBCELLULAR LOCATION: Membrane-associated (Potential).

SUBCELLULAR TOCATION: Membrane-associated (Potential).

SIMILARITY: BELONGS TO THE ABC TRANSPORTER FAMILY. MGLA SUBFAMILY.
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Sugar transport; Membrane; ATP-binding; Complete proteome.
ATP (POTENTIAL).
496 AA; 55191 MW; B6F63D53C5CD1411 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 15, Created)
(Rel. 41, Last sequence update)
(Rel. 41, Last annotation update)
ductase flavoprotein subunit (EC 1.3.99.1).
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                                           Ringel M., ) to the EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64.0%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         epsilon subdivision; Helicobacter group;
                                           EMBL/GenBank/DDBJ
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Pred. No.
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                                                                               Schmidt E.,
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                                   Kroeger A.;
DBJ databases
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, Garland S.,
Smith H.O.,
                                                                                                                                                                                                                                                                  Sequence
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RESULT 13
PTRA_HUMAN
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Best Local
Matches
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                                                                                                       PTRA_HUMAN STANDARD; PRT; 802 AA. P1843; Q14513; 01-NOV-1990 (Rel. 16, Created) 01-NOV-1990 (Rel. 16, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update)
            Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-slb.ch/announce/or send an email to license@isb-slb.ch).
                                                                                 alpha)
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CONTAINING THREE SUBUNITS: A FLAVOPROTEIN, I
CYTOCHROME B-556.
-i- SIMILARITY: TO THE FLAVOPROTEIN SUBUNITS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      acceptor.
-|- COFACTOR: FAD; COVALENTLY LINKED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lancaster C.R.D., Gross R., Simon J.;
"A third crystal form of Wolinella succinogenes
reductase reveals domain closure at the site of
Eur. J. Biochem. 268:1820-1827(2001).
-I- CATALYTIC ACTIVITY: Succinate + acceptor - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS), AND REVISIONS TO 281-289.
MEDLINE=20052158; PubMed=10586875;
Lancaster C.R.D., Kroeger A., Auer M., Michel H.;
"Structure of fumarate reductase from Wolinella succinogenes at 2.2
                                                     Homo sapiens
                                                                    PTPRA OR PTPA.
                                                                                              Protein-tyrosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR003953;
InterPro; IPR003952;
InterPro; IPR004112;
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PDB; 1QLB; 29-NOV-99.
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PIR; B44954; B44954.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       x-ray Crystallography (3.1 ANGSTROMS).
MEDLINE-21145485; PubMed-11248702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nature 402:377-385(1999).
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PF02910; succ_DH_flav_C; 1.
TE; PS00504; FRD_SDH_FAD_BIN
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                                                                                                                                                                                                                                                                                          Similarity 50. 5; Conservative
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                                                     (Human)
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273
289
72834 MW;
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                                                                                             phosphatase
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?Lectron transport; Flavoprotein; FAD; 3

FAD (AMP PART) (POTENTIAL).
                           Chordata;
Primates;
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Succ_DH_flav_C.
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50.0%;
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BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
COUGHERM -> RCGWTP:
DVDGHERM -> CGWTP:
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Pred. No. 37;
4; Mismatches
                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                             precursor
                                                                                                                                                                                                                                                                                                         DB
37;
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                                                                                              3:1.3.48) (R-PTP-
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RA Deloukas P., Matthews L.H., Ashurst J., Burton J., Gilbert J.G.R.,
RA Deloukas P., Matthews L.H., Ashurst J., Burton J., Gilbert J.G.R.,
RA Bailey J., Barlow K.F., Batcas K.N., Beard L.M., Beare D.M.,
RA Bailey J., Barlow K.F., Batcas K.N., Beard L.M., Beare D.M.,
RA Beasley O.P., Bird C.P., Blakey S.E., Bridgeman A.M., Brown A.J.,
RA Beuck D., Burrill W.D., Buller A.P., Carder C., Carter N.P.,
RA Chapman J.C., Clamp M., Clark G., Clark L.N., Clark S.Y., Clee C.M.,
RA Chapman J.C., Clamp M., Clark G., Clark L.N., Clark S.Y., Clee C.M.,
RA Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R.,
RA Clulson A., Coville G.J., Deadman R., Dhami P.D., Dunn M.,
RA Clulson A., Coville G.J., Deadman R., Dhami P.D., Dunn M.,
RA Ellington A.G., Frankland J.A., Fraser A., French L., Garner P.,
RA Grafham D.V., Griffiths C., Griffiths M.N.D., Gwilliam R., Hall R.E.,
RA Hummond S., Harley J.L., Heath P.D., Ho S., Holden J.L., Howden P.J.,
RA Hammond S., Harley J.L., Heath P.D., Ho S., Holden J.L., Howden P.J.,
RA Kay M.P., Kimberley A.M., King A., Knights A., Laird G.K., Lawlor S.,
RA Kay M.P., Kimberley A.M., King A., Knights A., Laird G.K., Lawlor S.,
RA Milne S.A., Mistry D., Moore M.J.F., Mullikin J.C., Nickerson T.,
RA Mille S.A., Mistry D., Moore M.J.F., Mullikin J.C., Nickerson T.,
RA Mille S.A., Mistry D., Moore M.J.F., Plumb R.W., Ramsay H.,
RA Rice C.M., Ross M.T., Scott C.E., Sehra H.K., Shwankeen R., Sims S.,
RA Swann R.M., Sycamore N., Taylor R., Tee L., Thomas D.W., Thorpe A.,
RA Mitchead S.L., Whittaker P., Willey D.L., Wallisms L., Williams S.A.,
RA Milming L., Wray P.W., Hubbard T., Durbin R.M., Bentley D.R., Beck S.,
RA Milming L., Wray P.W., Hubbard T., Durbin R.M., Bentley D.R., Beck S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Sequence of a cDNA c
related peptide).";
Nucleic Acids Res. 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDIINE-90349565; PubMed=2166945;
Sap J., D'Eustachio P., Givol D., Schlessinger
"Cloning and expression of a widely expressed
"Cloning and expression of a widely expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic
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MEDLINE=91032191; PubMed=2172030;

Jirik F.R., Janzen N.M., Melhado I.G., Harder K.W.;

"Cloning and chromosomal assignment of a widely exp:
receptor-like protein-tyrosine phosphatase.";
FEBS Lett. 273:239-242(1990).
     This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-91088320; PubMed-2175890;
Ohagi S., Nishi M., Steiner D.F.;
"Sequence of a cDNA encoding huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Krueger N.X., Streuli M., (
"Structural diversity and (
tyrosine phosphatases.";
EMBO J. 9:3241-3252(1990).
                                                                                                                                                                      Nature
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                                                   tyrosine + phosphate.
SUBCELLULAR LOCATION:
SIMILARITY: CONTAINS
                                                                                                                                      e DNA sequence and comparativure 414:865-871(2001).
CATALYTIC ACTIVITY: Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                n R., Morse B., Huebner K., Croce C., Howk R., Rave
G., Jaye M., Schlessinger J.;
ing of three human tyrosine phosphatases reveals a
y_of receptor-linked protein-tyrosine-phosphatases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FROM N.A.
1006018; PubMed=2170109;
1006018; PubMed=2170109;
     entry
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., Schlessinger J.;
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B., Huebner K.,
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PROTEIN-TYROSINE PHOSPHATASE DOMAINS.
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PROSITE; PS50055; TYR_PHOSPHATASE_PTP;
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Pfam; PF00102; Y_phosphatase; 2.
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InterPro; IPR000859; CUB_domain.
InterPro; IPR001314; Chymotrypsin.
InterPro; IPR0013174; LDL_recept_A.
InterPro; IPR000998; MAM_domain.
InterPro; IPR000082; SEA_domain.
InterPro; IPR001134; Ser_pfotease_Try.
InterPro; IPR001139; Ser_receptor.
Pfam; PF00057; Idl_recept_a; 2.
Pfam; PF00089; trypsin; 1.
Pfam; PF000431; CUB; 2.
Pfam; PF00431; CUB; 2.
Pfam; PF00431; CUB; 2.
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LOCATION: TYPE II MEMBERNE PROLEIN (Probable).

LTISSUE SPECIFICITY: INTESTINAL BRUSH BORDER.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE-94329561; PubMed-8052624; Kitamoto Y., Yuan X., Wu Q., McCourt D.W., Sadler J.E.; "Enterokinase, the initiator of intestinal digestion, is protesse composed of a distinctive assortment of domains Proc. Natl. Acad. Sci. U.S.A. 91:7588-7592(1994).
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                                                                                                                                                                                                                                                                                                                                                                               s SWISS-PROT entry is copyright. It is produced through a collal ween the Swiss Institute of Bioinformatics and the EMBL outsi European Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: RESPONSIBLE FOR INITIATING ACTIVATION OF PANCREATIC PROTECTIVES (TRYPSIN, CHYMOTRYPSIN AND CARBOXYPETTIDASE A). IT CATALYZES THE CONVERSION OF TRYPSINOGEN TO TRYPSIN WHICH IN TURN ACTIVATES OTHER PROENZYMES INCLUDING CHYMOTRYPSINOGEN, PROCARBOXYPETIDASES, AND PROELASTASES.

CATALYTIC ACTIVITY: Selective cleavage of 6-Lys-1-Ile-7 bond in
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SMART; SM00202; Tryp_SPC; 1.

SMART; SM000202; Tryp_SPC; 1.

PROSITE; PS01180; CUB; 2.

PROSITE; PS01209; LDLRA_1; 2.

PROSITE; PS00740; MAM_1; 1.

PROSITE; PS50060; MAM_2; 1.

PROSITE; PS50024; SEA; 1.

PROSITE; PS50024; SEA; 1; FALSE, 1

PROSITE; PS500240; TRYPSIN_DOM; 1.

PROSITE; PS500240; TRYPSIN_DOM; 1.

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Glycoprotein; Myristate; Hydrolase; Eymogen; Transmembrane; Repeat; Alternative sp. 1 800 NON-CATALYTIC CHAIN (HEAVY CHAIN).
11 1035 CATALYTIC CHAIN (LIGHT CHAIN).
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RA Addams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Addams M.D., Celniker S.E., Richards S., Ashburner M., Henderson S.N.,
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RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
RA Barandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfelffer B.D.,
RA Barlew R.M., Basu A., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Ballew R.M., Basu A., Baxter B.G., Helt G., Nelson C.R., Miklos G.L.G.,
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RA George K., Cayley S., Dahlke C., Davenport L.B., Davies P.,
RA George K., Cayley S., Dahlke C., Davenport L.B., Davies P.,
RA Harris N.L., Harvey D., Dahler M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Lasko P., Lei Y., Karpen G. H., Ke Z., Kennison J.A., Ketchum K.A.,
RA Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
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P55162; O9VNU8;
01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence up
16-OCT-2001 (Rel. 40, Last annotation in orben)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baumgartner S., Martin D., Chiquet-Ehrismann R., Sutton J., Desai A., Huang I., Kato K., Hromas R.; With transmembrane The HEM proteins a novel family of tissue-specific transmembrane proteins expressed from invertebrates through mammals with an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-Canton-S;
MEDLINE-95371111; PubMed-7643388;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Mandibulata; Pancrustacea; Hexapoda;
Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Membrane-associated protein Hem (Dhem-2).
HEM OR HEM2 OR CG5837.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    essential function in oogenesis.";
J. Mol. Biol. 251:41-49(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.; "The genome sequence of Drosophila melanogaster."; Science 287:2185-2195(2000).
                                                                                                                                                                                                                                                                                                                                                                                                   -1- FUNCTION: PLAY A ROLE DURING GROWTH OF THE OCCYTE.

1- DEVELOPMENTAL STAGE: EXPRESSED MATERNALTY IN THE OCCYTE AND SHOWS
UNIFORM EXPRESSION DURING THE FIRST HALF OF EMBRYOGENESIS, BUT
BECOMES RESTRICTED TO THE BRAIN AND THE NERVOUS SYSTEM DURING LATE
                                                                                                                                                           Transmembrane
                                                                                                                                                                        FlyBase; FBgn0011771; Hem.
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Search completed: July 11, 2003, 11:55:21 Job time: 1.95634 secs

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sp_archea:*

sp_bacteria

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O9y5u9 homo sapien
O9cr20 mus musculu
O8w2r3 oryza sativ
O9fu59 oryza sativ
O50755 borrelia bu
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09nb28 branchiosto
09d695 mus musculu
093ag2 pseudomonas
                                                                   042614 cyprinus ca
P91376 caenorhabdi
Q8uv19 sphoeroides
023030 arabidopsis
022783 arabidopsis
088286 mus musculu
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| 45                 | 44                   | 43     | 42     | 41     | 40                 | 39                | 3<br>8            |                    | 36                 |        |        | ω<br>ω | 32     | 31     | 30                 | 29     | 28                | 27      | 26                 | 25                | 24     | 23                 | 22                 | 21                 | 20     | 19                 | 18       | 17                 |
|--------------------|----------------------|--------|--------|--------|--------------------|-------------------|-------------------|--------------------|--------------------|--------|--------|--------|--------|--------|--------------------|--------|-------------------|---------|--------------------|-------------------|--------|--------------------|--------------------|--------------------|--------|--------------------|----------|--------------------|
| 32                 | 32                   | 32     | 32     | 32     | 32                 | 32                | 32                | 32                 | 32                 | 32     | 32     | 32     | 32     | 32     | 32<br>2            | 32     | 33                | ω<br>33 | ω<br>ω             | ω<br>ω            | ω<br>ω | သ                  | 33                 | ພ                  | 33     | ω<br>ω             | <b>ω</b> | 3<br>3             |
| 64.0               | 64.0                 | 64.0   | 64.0   | 64.0   |                    | 64.0              | •                 |                    | 64.0               |        |        |        |        | •      |                    |        |                   | 66.0    |                    |                   |        |                    |                    |                    |        |                    | 66.0     | •                  |
| 1972               | 1220                 | 807    | 802    | 738    | 708                | 581               | 526               | 497                | 496                | 486    | 473    | 371    | 298    | 252    | 229                | 161    | 1232              | 1018    | 793                | 761               | 642    | 536                | 395                | 366                | 349    | 318                | 303      | 281                |
| 4                  | 4                    | 13     | 4      | 10     | 4                  | σ                 | σ                 | N                  | N                  | 16     | 13     | 13     | 16     | 16     | 10                 | 10     | υ                 | 5       | 11                 | G                 | 4      | 4                  | 13                 | 16                 | Ç      | 10                 | N        | 16                 |
| Q9UIF8             | Q9P252               | Q91969 | Q96TD9 | Q9XEM3 | Q96SQ8             | Q9VNW4            | Q8T8Z3            | Q9ZGA2             | Q56341             | Q91278 | Q9IB97 | Q90ZL9 | P71702 | Q8YGA5 | Q9FZJ8             | Q8VWR4 | Q9VF19            | Q95TW8  | Q91V35             | Q95YQ5            | Q96KQ6 | Q8TE48             | Q90231             | Q985Z3             | Q9U5N7 | Q94 ЈВ7            | Q9RC27   | Q8YVK5             |
| Q9uif8 homo sapien | . Q9p252 homo sapien | 9 gal] |        | w      | Q96sq8 homo sapien | Q9vnw4 drosophila | Q8t8z3 drosophila | Q9zga2 treponema d | Q56341 treponema p |        |        |        |        |        | Q9fzj8 arabidopsis |        | Q9vfi9 drosophila |         | Q91v35 mus musculu | Q95yq5 leishmania | homo   | Q8te48 homo sapien | Q90231 alligator m | Q985z3 rhizobium 1 | _      | Q94jb7 oryza sativ |          | Q8yvk5 anabaena sp |

## ALIGNMENTS

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Q920J5;
01-DEC-2001 (TIEMBLIEL 19, C
01-DEC-2001 (TIEMBLIEL 19, L
01-MAR-2002 (TIEMBLIEL 20, L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDLINE-21368006; PubMed-11473647;

Nangaku M., Miyata T., Suzuki D., Umezono T., Hashimoto T., Wada T.,

Yagi M., Nagano N., Inagi R., Kurokawa K.;

"Cloning of rodent megsin revealed its up-regulation in

mesangioproliferative nephritis.";

Kidney Int. 60:641-652(201),

-i-SIMILARITY: BELONGS TO THE SERPIN FAMILY.

EMBL, AF105329; AAL16769.1; -.

InterPro; IPRO0215; Serpin.
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SEQUENCE
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00079; serpin; 1.
proSITE; PS00284; SERPIN; UNKNOWN_1.
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8; Conserv
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80.0%;
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                                                                                                                                                                                                                                                                                               Mismatches
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Refleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,

Ak Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

Ruehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

Ruehl P., Lewis S., Matsuo Y., Nikaido I., Besole G., Quackenbush J.,

Ruehl P., Lewis S., Watsuo Y., Tomita M., Wagner L., Washio T.,

Rakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

Rakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

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Rakai K., Okido T., Furuno M., Aono H., Baldarelli M.,

Rakai J., Barsh G.,

Rakai K., Okido T., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,

Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,

Rakai K., Waroshima J., Mazzarelli J., Sakamoto N.,

Rakai K., Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,

Rakai K., Wang K.H., Weitz C., Whittaker C., Wilming L.,

Warshaw Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
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Holland L.Z., Schubert M., Holland N.D., Neuman T.;

"Evolutionary conservation of the presumptive neural p
Amphisox1/2/3 and AmphiNeurogenin in the invertebrate
amphioxus.";

Dev. Biol. 0:0-0(2000).

REPUTING: AFF81765.1; -.

REPUTING: AFF81765.1; -.

REPUTING: HIGHMODITY_12.

REPUTING: NEW NG_12_box.

RINTERPO; IPR0000910; HMG_12_box.
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01-JUN-2001
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Falzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yam Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T.,
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
HMG box transcription factor AmphiSox1/2/3.
Branchiostoma floridae (Florida lancelet) (Amphioxus):
Eukaryota; Metazoa; Chordata; Cephalochordata; Branchiostomidae;
"Functional annotation of Nature 409:685-690(2001).
                                                                                                                 Wynshaw-Boris A., Yoshida
Hayashizaki Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-C57BL/6J; TISSUE-SKIN; MEDLINE-21085660; PubMed-11217851;
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SERPINB7 OR 4631416M05RIK.
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SMART; SM00398; HMG; 1.
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Mammalia; Eutheria;
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(TremBLrel. 17, Last sequence update)
(TremBLrel. 21, Last annotation update)
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Rodentia;
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                                                                             of a
                                                                                 full-length mouse
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Pred. No.
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5.2;
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                                                                                 cDNA collection.";
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S., Yamanaka
Saito
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amanaka I.,
Saito R.,
                                                                                                                                                                                                                                       Storch K.-F.,
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Best Local
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042614;
042614;
01-JAN-1998
01-JAN-1998
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InterPro; IPR000733; Flav_monooxygnse.
InterPro; IPR0002938; woxy_FAD_binding.
InterPro; IPR000295; NAD_binding.
InterPro; IPR0002594; ThiF_domain.
Pfam; PF01494; FAD_binding_3; 1.
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01-DEC-2001
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Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
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                                                                                                                                                                                                                                                                                                                                                              Monooxygenase.
SEQUENCE 553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases EMBL; AF421356; AAL16082.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         degrade chloranilic acid
quinone).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Trevino-Quintanilla L.G., Soberon-Chavez G.; "Isolation and characterization of a Pseudomonas putida strain able degrade chloranilic acid (2,5-dichloro-3,6-dihydroxy benzo-1,4-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-2001
01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      quinone)
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SEQUENCE 380 AA; 43050 MW; C924
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InterPro; IPR000215; Serpin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE=21368006; PubMed=11473647;
Nangaku M., Miyata T., Suzuki D., Umezono T., Hashimoto T.,
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7; Conserv
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7; Conserv
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(TrEMBLrel.) (TrEMBLrel.) (TrEMBLrel.)
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                                                                                      PRELIMINARY;
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Pred.
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"Direct Submission.";
Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
REMBL; U88168; AAC24403.2; -.
RINTERPRO; IPR000719; Euk_pkinase.
REPTO; IPR002290; Ser_thr_pkinase.
REPTO; PF00069; pkinase; 1.
REPTODOM; PD000001; Euk_pkinase; 2.
REMART; SM00220; S_TKC; 1.
REPROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
WHYPOTHETICAL PROTEIN_KINASE_DOM; 1.
WHYPOTHETICAL PROTEIN_KINASE_DOM; 1.
SEQUENCE 376 AA; 42391 MW; 60F460A4685000F8 CRC64;
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Best Local
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NCBI_TaxID-7962;
[1]
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P91376;
01-MAY-1997
01-MAR-2002
01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Caenorhabditis elegans.
Eukaryota; Metazoa; Nematoda;
Rhabditidae; Peloderinae; Caer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Genome sequence of the nematode investigating biology. The C. ele Science 282:2012-2018(1998).
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                                                                                                                                                                                                                                                                   STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
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MART; SM00093; SERPIN; 1.
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                                                                                                                                                                                                                                                                                             FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PubMed-9851916;
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                                                                                                                                                                                                                                                                                                                                        elegans ) to the
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77.8%;
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Caenorhabditis.
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EMBL/GenBank/DDBJ
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Pred. No. 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ode C. elegans: a platform for elegans Sequencing Consortium.
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Ostariophysi; Cypriniformes;
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RESULT
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Best Local
SEQUENCE FROM N.A.
STRAIN-CV. COLUMBIA;
Osborne B.I., Vysotskaia V.S., Toriumi M., Yu G., Oji O., Liu S.
Li J., Hoang L., Buehler E., Conway A.B., Conway A.R., Dewar K.,
Feng J., Kim C., Kurtz D., Li Y., Shinn P., Sun H., Davis R.W.,
Ecker J.R., Federspiel N.A., Theologis A.;
The sequence of BAC TIGII from Arabidopsis thaliana chromosome
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                 identifies key regulatory.elements
Hum. Mol. Genet. 10:371-382(2001).
EMBL; AY016023: AAL73050.1; -.
InterPro; IPR005365; UPF0171.
Pfam; PF03666; UPF0171; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=21096913; PubMed=11157800;
Flint J., Tufarelli C., Peden J., Clark K., Daniels
Miller W., Philipsen S., Tan-Un K.C., McMorrow T., E
Alter B.P., Frischauf A.M., Higgs D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sphoeroides nephelus.
Eukaryota; Metazoa; Chordata; Cr
Actinopterygii; Neopterygii; Tel
Acanthomorpha; Acanthopterygii;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08UV19;
                                                                                                                      Arabidopsis thallana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnollophyta; eudicotyledons; core eu
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                          O23030;
01-JAN-1998 (TrEMBLrel.
01-JAN-1998 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-WAR-2002 (TrEMBLrel. 20, Created)
01-WAR-2002 (TrEMBLrel. 20, Last sequence
01-UN-2002 (TrEMBLrel. 21, Last annotati.
Hypothetical 63.6 kDa protein (Fragment).
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                                                                                                          NCBI_TaxID=3702;
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Similarity 50.0%;
5; Conservative
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500 AA;
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Last sequence update)
Last annotation update
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Craniata; Vertebrata; Euteleostomi;
Teleostei; Euteleostei; Neoteleostei;
ii; Percomorpha; Tetraodontiformes;
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Pred. No.
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RESULT 10
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Submitted (OCT-1997) to the ENEMBL; AC002376; AAB80639.1;
InterPro; IPR000008; C2.
Pfam; PF00168; C2; 1.
SMART; SM00239; C2; 1.
088286
088286;
01-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lin X., Kaul S., Rounsley S.D., Shea T.P., Benito M.-I., Town C.D., Fujii C.Y., Mason T.M., Bowman C.L., Barnstead M.E., Feldblyum T.V., Buell C.R., Ketchum K.A., Lee J.J., Ronning C.M., Koo H., Moffat K.S., Cronin L.A., Shen M., Vanaken S.E., Umayam L., Tallon L.J., Gill J.E., Adams M.D., Carrera A.J., Creasy T.H., Goodman H.M., Somerville C.R., Copenhaver G.P., Preuss D., Nierman W.C., White O., Eisen J.A., Salzberg S.L., Fraser C.M., Venter J.C.;
                                                                                                                                                                                                                                                                                                                                                                                          EMBL; AC002332; AAB80650.1;
InterPro; IPR000008; C2.
Pfam; PF00168; C2; 1.
SMART; SM00239; C2; 1.
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MEDLINE-20083487; PubMed=10617197;
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01-JAN-1998 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
At2933320 protein.
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SEQUENCE FROM N.A
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64860
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Pred. No.
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InterPro; IPR00082; Znf_C2H2.
Pfam; PF00096; Zf-C2H2; 10.
PRINTS; PR00048; ZINCFINGER.
SMART; SM00355; ZnF_C2H2; 1.
R PROSITE; PS00128; ZINC_FINGER_C2H2_1; 8.
R PROSITE; PS50157; ZINC_FINGER_C2H2_2; 7.
R PROSITE; PS50157; ZINC_FINGER_C2H2_2; 7.
DNA-Dinding; Metal-Dinding; Nuclear protein; Zi
DNA-Dinding; Metal-Dinding; Nuclear protein; Zi
DNA-Dinding; Metal-Dinding; Nuclear protein; Zi
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Lamerdin J.E., McCready P.M., Skowronski E., Viswanathan V.,

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Burkhart-Schultz K., Gordon L., Dias J., Brower A., Ramir Stilwagen S., Phan H., Velasco N., Do L., Regala W., Terr Garnes J., Danganan L., Erler A., Christensen M., Georges Avila J., Liu S., Attix C., Andreise T., Trankheim M., Amico-Keller G., Coefield J., Duarte S., Lucas S., Bruce Thomas P., Quan G., Krommiller B., Arellano A., Sanders C Nolan M., Trong S., Kobayashi A., Olsen A.S., Carrano A.V
                                                                                                                                                                                                                                                                                                                                                 Arellano A., Sanders C., Ow Olsen A.S., Carrano A.V.; "Sequence analysis of a 3.5 JUND.";
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01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
Human homolog of MUS.MUSCULLUS WIZL protein (Human h
                                                                                                                                                                                                                   SEQUENCE OF 783-1568
Lamerdin J.E., McCrea
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Metazoa; Chordata; C
Metazoa; Rodentia;
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Primates;
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3; Mismatches
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., Dias J., Brower A., Ramirez M.,
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arrano A.V.;
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EMBI; AC007059; AAD19817.1; --
InterPro; IPR00082; Znf_C2H2.
Pfam; PF00096; zf-C2H2; 10.
SMART; SM00355; Znf_C2H2; 10.
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Submitted
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Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Primates;
NCBI_TaxID=9606;
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01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-NOV-1999 (TrEMBLrel. 20, Last annotation update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
HSPC039 protein (Hypothetical 9.0 kDa protein) (Immediate early
response 3 interacting protein) (Similar to HSPC039 protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Sequence
p198885.";
                                                                                                                                              Bloecker H., Wiemann S.;
                                                                                                                                                                                     Huang C., Zhang C., Wu T.,
Han Z., Wang Y., Chen Z.,
"A novel gene expressed in
Submitted (JUL-1999) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00028; ZINC_FINGER_C2H2_1;
PROSITE; PS50157; ZINC_FINGER_C2H2_2;
DNA-binding; metal-binding; Zinc-finger
 Strausberg R.;
                                                                           Submitted
                                                                                                                     SEQUENCE FROM
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                                                                                                                                                                                                                                               Ye M., Zhang Q., Zhou J., Shen Y., G
Dal M., Huang Q., Chen S., Chen Z.;
"Human HSPC039 mRNA, complete cdse.",
Submitted (FEB-1999) to the EMBL/Gen
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                                                          SEQUENCE FROM
                                                                                                           TISSUE-LIVER;
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                                                   TISSUE-BRAIN;
                  SEQUENCE FROM N
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(IERIP).";
       CISSUE-MYELOID
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Fu G.;
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                                  EMBL/GenBank/DDBJ databases
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Pred. No. 1.4e+02;
3; Mismatches 1
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RESULT 13
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RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Kando S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischman W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Sakai K., Okido T., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Blake J., Boifelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionii L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Wilming L.,
RA Wyoshawa T., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Wyoshawa Y. Kawaii H., Kohtsuki S.
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                                                                                              Submitted (JAN-2002) to the EMBL/(Submitted (JAN-2002) to the EMBL/(EMBL; AK009116; BAB26081.1; -. EMBL; AK009188; BAB23248.1; -. EMBL; AK007388; BAB25314.1; -. EMBL; AK007862; BAB25314.1; -. EMBL; BC021512; AAH21512.1; -. EMBL; BC021512; AAH21512.1; -. MGD; MGI:1913441; 1110057H19Rik.
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1110057H19RIA.
Mus musculus (Mouse).
Mus mvota; Metazoa; Chordata;
heria; Rodentia;
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01-JUN-2001 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
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                                                                               SEQUENCE
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Hayashizaki Y.;
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                                                                                                                                                                                                                                                            EQUENCE FROM N.A.
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AF164798; AAF80762.1;
AL136667; CAB66602.1;
AF371963; AAK53816.1;
BC010888; AAH10888.1;
BC017391; AAH17391.1;
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  Similarity 5; Conserv
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N cDNA 1110057H19 gene).
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Pred. No. 12;
4; Mismatches
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Sciurognathi; Muridae;
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RESULT Q8W2R3

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Q8W2R3; Q8W2R3;

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01-MAR-2001 (TrEMBLrel. 16, C.
01-MAR-2001 (TrEMBLrel. 16, L.
01-MAR-2001 (TrEMBLrel. 16, L.
P0013F10.15 protein.
P0013F10.15.
SEQUENCE FROM N.A.
STRAIN=CV. NIDPONBARE;
Sasaki T., Matsumoto T., Yamamoto K.;
"Oryza sativa nipponbare(GA3) genomic clone:P0013F10.";
                                                                                                                                       Oryza sativa (Rice).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
NCBI_TaxID=4530;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00010; ASX_HYDROXYL; UNKNOWN_1.
PROSITE; PS01187; EGF_CA; UNKNOWN_1.
PROSITE; PS001107; PROTEIN_KINASE_ATP; UNKNOWN_1.
PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.
PROSITE; PS00108; PROTEIN_KINASE_ST; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AC098565; AAL69427.1; .
InterPro; IPR000152; Ashydroxyl.
InterPro; IPR000561; EGF-1ike.
InterPro; IPR001881; EGF_Ca.
InterPro; IPR000719; Euk_pkinase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProDom; PD000001; Euk_pkinase; 1.
SMART; SM00001; EGF_like; 2.
SMART; SM00220; S_TKC; 1.
SMART; SM00219; TyrKC; 1.
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Pfam; PF00069;
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Saski C., Henry D., Oates
"Rice Genomic Sequence.";
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoideae; Oryzeae; Oryza.
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01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Putative wall-associated protein kinase.
05JNBA0028C16.9.
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Matches 6; Conserv
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| 664.5                                    | 664.5    | 671               | 673.5                 | 200      | 702          | 714.5              | 714.5              | 714.5    | 715      | 715      | 715      | 715.5             | 715.5    | 715.5              | 715.5              | 717.5              | 722.5    | 722.5              | 738.5              | 740               | 744               | 748                | 748      | 750       | 752      | 752      | 752               | 752               | 769               | 771.5    | 796.5    | 1458               |
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| 415<br>415                               | 415      | 200               | ٠<br>د<br>د<br>د<br>د | )<br>(1) | 400          | 391                | 391                | 391      | 400      | 400      | 400      | 391               | 391      | 391                | 391                | 379                | 437      | 379                | 617                | 390               | 390               | 390                | 390      | 390       | 390      | 390      | 390               | 390               | 394               | 395      | 379      | 368                |
| 10<br>12                                 |          | J :               | ) i                   |          | 3 K          | 21                 | 21                 | 20       | 23       | 21       | 20       | 23                | 22       | 21                 | 20                 | 16                 | 21       | 17                 | 21                 | 18                | 18                | 22                 | 20       | 20        | 22       | 20       | 20                | 13                | 23                | 22       | 21       | 22                 |
| AAP94160<br>AAR10921                     | AAP80473 | AAR12143          | AAII16928             | 11010100 | AAY72652     | AAB10954           | AAB10953           | AAY25926 | ABB74947 | AAB11315 | AAY41030 | ABB74946          | AAY72651 | AAB11314           | AAY41029           | AAR64159           | AAB43755 | AAR94367           | AAY15156           | AAW15241          | AAW15242          | AAY72655           | AAY25927 | AAY32078  | AAY72654 | AAY25928 | AAY32077          | AAR25276          | ABB53280          | AAM47207 | AAY15155 | AAB83077           |
| Sequence of plasmi<br>Encodes Plasminoge | _        |                   | Human novel secret    |          | _            | Human serine prote | Human serine prote | ä        |          | lung     |          | Human lung tumour | head     | Human lung cancer- | Human lung tumor a | Human elastase inh |          | Human elastase inh | Human prostate ser | Psoriastatin type | Psoriastatin type | Human squamous cel |          | itis B vi | 0        |          | Hepatitis B virus | SCC antigen. Synt | Human polypeptide | NOV1 pro | œ.       | Murine megsin prot |

## ALIGNMENTS

AAR48379 standard; Protein; 380 AA

AAR48379;

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RESULT 1
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AC AAR4
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WPI; 1994-058782/08.
N-PSDB; AAQ56670.
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Tsujimoto M,
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04-MAR-1993;
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M, Tsuruoka
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93JP-0067339
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RESULT 2
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Best Local Similarity
Matches 380; Conserv
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                                                                                                                                                                                                                                                                                            Human megsin
                                                                                                                                                                                                                                                                                                                                                                                     AAY08254;
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    22-SEP-1997;
                                                                                        01-APR-1999
                                                                                                                                  WO9915652-A1
                                                                                                                                                                                                                      Megsin; mesangial cell;
human; rat; murine.
                                                                                                                                                                                                                                                                                                                                         14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                               AAY08254 standard;
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                                              22-SEP-1998;
                                                                                                                                                                                 Homo
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                                              98WO-JP04269
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                                                                                                                                                                                                                                                                                                                                                                                                                             Protein;
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                                                                                                                                                                                                                                                  treatment;
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Pred. No. 3.6
0; Mismatches
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                                                                                                                                                                                                                                              diagnosis;
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1.6e-169;

    isolated from
conditions invo

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RESULT 3
AAB24142
ID. AAB2
XX AAB2
XX AAB2
XX AAB2
XX AB2
XX Megs
XX Megs
KW I9A;
XW I9A;
XW Megs
KW I9A;
XW Molac
XX Homc
XX Molac
XX Mol

Human megsin

protein (first entry)

sequence

SEQ

Ħ

NO:2.

30-JAN-2001

AAB24142

standard;

Protein;

380

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300

240

Megsin; mesangium-predominant gene; IgA; immunoglobulin A; detection; rediagnosis; biological sample; blood;

renal

function;

urine

serpin regulated; nephropathy; enal function; renal disorder;

WO200057189-A1 Homo sapiens.

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Best Local S
Matches 380
                                                                                                                                                                                                                                                                                                           This invention describes the isolation of novel megsin nucleic acid a proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangia cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-276983/23.
N-PSDB; AAX56712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (KURO/)
                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 62-64; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Miyata
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    KUROKAWA
MIYATA T.
                                                                                                                                                                                                                                                                 Similarity
                                                                     DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
                                                                                                                                                                                                                    FLFVIRKDDIILFSGKVSCP 380
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                                                                                                                    WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
                                   DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
                                                                                                                                                                                                                                                                                             380
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RESULT 4
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Best Local S
Matches 380
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Evaluating
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(FUSO ) FUSO PHARM
(MIYA/) MIYATA T:
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28-OCT-1999;
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            AAB83075;
                                  AAB83075 standard;
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DB; AAA99294.
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Similarity 100.0%;
80; Conservative (
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                                                                                         FLFVIRKDDIILFSGKVSCP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 380
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99JP-0306623
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                                 Protein;
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Pred. No. 3.6e-169;
Mismatches 0;
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is human megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useful for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-OCT-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200124628-A1
                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 4; Page 44-46; 62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-300136/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                             this method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                se model for mesangial cell proliferative nephritis screening of new treatments -
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                                                                                       LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK
                                          DESKADLSGIASGGRLYISRMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
                                                                                                                                               WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
                                                                                                                                                                                   LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK
                                                                                                                                                                                                                                            NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
          FLFVIRKDDIILFSGKVSCP
                                                                                                                                                                                                                               NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
                                                                                                                                     WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mouse;
                                                                                                                                                                                                                                                                                                                                                                      380
                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mesangial cell proliferative nephritis; nephrotropic; se; glomerular disease; animal model; drug screening.
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                                                                                                                                                                                                                                                                                                                                     100.0%;
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Pred. No. 3.
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AAG64286
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Best Local S
Matches 280
                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a novel antibody which recognises a peptide consisting of residues 341-354 of rat megsin protein. The present sequence is the protein sequence for rat megsin, which was used in the present invention. Mesgin is highly expressed in renal mesangial cells and its level is elevated in mesangium proliferative nephritis. Assay of the serum or urine level using the antibody is therefore indicative of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 54-56; 63pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200148019-A1
                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New antibody recognizing a partial sequence of diagnosis of mesangium proliferative nephritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-DEC-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rat; megsin; renal mesangial
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                                                                                                                                                                                                                                                                                                                                                                                 serum or urine level using s type of disorder.
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DB; AAH48181.
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                                                                                                                                                           LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK
                                                                                                                                                                                                            NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
            DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
                                    LPENDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRALGLKDIF
|||:|||||:||:||:||:||:||:||
LPEDDLSEIESKLSFQNLMDWTNSRKMKSQYVNVFLPQFKIEKDYEMRSHLKSVGLEDIF
                                                                                        WKSAFTKSDTLSCHFRSPSGPGKAVNMMHQERRFNLSTIQEPPMQILELQYHGGISMYIM
                                                                                                      WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
                                                                                                                                            LYNAKVERVDFTNDIQETRFKINKWIENETHGKIKKVLGDSSLSSSAVMVLVNAVYFKGK
                                                                                                                                                                                                ISPSRQGNSSNSQLGLQYQLKRVLADINSSHKDYELSIANGVFAEKVFDFHKSYMECAEN
                                                                                                                                                                                                                                                  MASLAAANAEFGFDLFREMDSSQGNGNVFFSSLSIFTALSLIRLGARGDCARQIDKALHF
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380
                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                   76.0%; Score 1488; [73.7%; Pred. No. 2.16]
73.7%; Pred. No. 2.16]
Live 57; Mismatches
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43;
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Best Local S
Matches 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This invention describes the isolation of novel megsin nucleic acid; proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 69-72; 100pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Megsin
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N-PSDB; AAX56712.
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(MIYA/) MIYATA T.
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241
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279; Conserv
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                                                                                                                                                                                    LPEDDLSEIESKLSFQNIMDWTNSRKMKSQYVNVFLPQFKIEKDYEMRSHLKSVGLEDIF
                     LPENDLSEIENKLTFQNLMEWTNPRRWTSKYVEVFFPQFKIEKNYEMKQYLRALGLKDIF
                                                                                                               WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKENLSVIEDPSMKILELRYNGGINMYVL
                                                                                                                                                                                                                                                                                ISPSRQGNSSNSQLGLQYQLKRVLADINSSHKDXKLSIANGVFAEKVFDFHKSYMECAEN
                                                                                                                                                                                                                                                                                                                                                                          MASLAAANAEFGFDLFREMDSSQGNGNVFFSSLSIFTALSLIRLGARGDCXRQIDKALHF
                                                                                                                                                                                                                                                                                                                                                                                                     MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
                                                                                          WKSAFTKSDTLSCHFRSPSGPGKAVNMMHQERRFNLSTIQEPPMQILELQYHGGISMYIM
                                                                                                                                                                                                                                                                                                           NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
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ilarity 73.4%;
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6; Mismatches 45;
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  Query Match
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Matches 279
                                                                                                                                  The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the rat megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM
(MIYA/) MIYATA T.
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28-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                 Miyata
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 n; mesangial cell proliferative nephritis; nephrotropic;
mouse; glomerular disease; animal model; drug screening
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sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is usefu for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using

The present sequence is rat megsin. The

human megsin coding

model of

useful

Disclosure; Page 48:50;

62pp; Japanese.

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RRSULT 9
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XX AAVO825
AC AAVC
XX Megs
XX Megs
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XX
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Best Local Similarity
Matches 279; Conserv
                                                                                                                                                                                                                                                                                      01-APR-1999.
  Megsin
                                        WPI; 1999-276983/23.
N-PSDB; AAX56714.
                                                                                                     Miyata T;
                                                                                                                                                                                                        22-SEP-1997;
                                                                                                                                                                                                                                                                                                                               WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY08256;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY08256 standard; Protein;
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                                                                                                                                           (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Megsin; mesangial cell; treatment; diagnosis; disease; IgA nephropathy;
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protein expressed
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                                                                                                                                                                                                                                                98WO-JP04269
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                                                                                                                                                                                                                                                                                                                                                                   "partial sequence"
specifically in mesangial
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Pred. No. 2e-125;
66; Mismatches 4
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  cells
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RESULT 10
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XX WO200
XX WO200
XX IJ-MI
XX IJ-MI
XX IJ-MI
XX IJ-MI
XX IL-MI
XX I

WO200057189-A1 Mus musculus.

28-SEP-2000

Megsin; mesangium-predominant gene; IgA; immunoglobulin A; detection; rediagnosis; biological sample; blood;

blood;

urine

renal function; renal disorder;

Mouse megsin protein sequence

SEQ ID

NO:21

30-JAN-2001 AAB24151;

(first entry)

AAB24151 standard; Protein;

368

B

19-MAR-1999; 28-OCT-1999;

99JP-0075305 99JP-0306623

(KURO/) KUROKAWA K. (FUSO) FUSO PHARM IND LTD (MIYA/) MIYATA T.

17-MAR-2000; 2000WO-JP01646

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Best Local S
Matches 270
                                                                                                                                                                                                                                                                                                                                                                                                        This invention describes the isolation of novel megsin nucleic acid any proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 76-79; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                   Local Similarity 73.4 tes 270; Conservative
                                                                                                                                                                                                                   133
 361
                       373
                                               301
                                                                      313
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                                                                                                                                                       193 CHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVLLPENDLSEIENK 252
                                                                                               241
                                                                                                                     253
                                                                                                                                                                                           121
                                                                                                                                                                                                                                        1 FDLFREMDSSQGNGNVFFSSLSIFTALTLIRLGARGDCARQIDKALHFNIPSRQGNSSNN
FTGKVSCP
                                             CRFRSPTCPGKVVNMMHQERRFNLSTIQQPPMQVLELQYHGGISMYIMLPEDGLCEIESK
                                                                                                                                                                                          NDVQDTRFKINKWIENETHGKIKKVLGDSSLSSAVMVLVNAVYFKGKWKSAFTKTDTLS
                                                                                                                                                                                                      NHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGKWQSAFTKSETIN 192
                       FSGKVSCP 380
                                                                                                                                                                                                                                                                                                                                                                                    368 AA;
                                                                                                                                                                                                                                                                                                                                      74.4%; Score 1458; DB 20; 73.4%; Pred. No. 1e-123; tive 53; Mismatches 45;
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RESULT 11
AAB83077
ID AAB83
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Matches 270;
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                                                                    Mouse; megsin;
transgenic mous
                                                                                                                                                                        10-JUL-2001
                                                                                                                                                                                                             AAB83077;
                                                                                                                                                                                                                                              AAB83077 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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   WO200124628-A1
                                         Mus musculus.
                                                                                                                                  Murine
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DB; AAC55239.
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                                                                            mouse;
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                                                                                                                                                                      (first
                                                                                                                                  protein
                                                                        mesangial cell proliferative nephritis; nephrotropic;
se; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                      entry)
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Pred. No. 1e-123;
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                   07-FEB-2000
                                                        AAY15155;
                                                                                           AAY15155
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N-PSDB; AAF82440.
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(MIYA/) MIYATA T.
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FTGKVSCP 368
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                                                                                             standard;
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                                                                                                                                                                                                                                                                                 GGRLYISRAMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHPFLFVIRKDDIIL
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                                                                                             379
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Pred. No. 1e-123;
3; Mismatches 4
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                                                                                                                                                                                                                                                                                                                          Claim 1; Fig 1;
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                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB;
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(HUBE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAR-1998;
15-MAY-1998;
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RAITANO A B.
SAFFRAN D C.
                                                                                                                Similarity
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HUBERT R S.
SHTVDSLKPGFKDSPKCSQAGRIHSEFGVEFSQINQPDSNCTLSIANRLYGTKTMAFHQQ
                                                               MASLAAANAEFCENLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
                                                                                                                                                                                 prostate cancer, cancer.
                         ----NTASGYGNSSN-SQSG-LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKD 113
                                                   MGSLSTANVEFCLDVFKELNSNNIGDNIFFSSLSLLYALSMVLLGARGETAEQLEKVLHF
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98US-0085720.
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                                                                                                                                                                                                                                                                                                                          63pp;
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/note= "confers stability to the serpin-protease
complex and is highly conserved among the serpin-
344..345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label- Serine_protease_inhibitory_domain /note- "Also known as reactive-site loop (RSL) and contains a hinge region and a variable region. RSL binds to protease active site during inhibition"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers 330..347
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tumour suppressor; apoptosis-inducer; diagnosis;
                                                                                                                40.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    prognosis; treatment; prostate cancer;
                                                                                                                                                                                                                                                                                                                           English.
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                                                                                                   Pred. No. 1.2e-63; 7; Mismatches 120
                                                                                                                            Score 796.5;
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                                                  N-PSDB;
                                                                            WPI; 2001-626379/72.
                                                                                                                              Shimkets
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29-MAR-2001;
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06-APR-2000;
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11-APR-2000;
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2000US-195792P.

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2000US-197087P.

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Spytek K
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Liu X, Patt
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Patturajan M,
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Gusev VY;
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RESULT 14
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Best Local
                                                                           Human; nootropic; neuroprotective; anticonvulsant; antidepressant; neuroleptic; tranquiliser; antiarrhythmic; cardiant; antiasthmatic; antiinflammatory; antilipaemic; hepatotropic; virucide; antidiabetic; nephrotropic; anorectic; cytostatic; vaccine; neurological disease; cardiovascular disease; respiratory disease; liver disease; renal disease; sekletal muscle disease; pastrointestinal disease; placental disease; testicular cancer; male fertility; pancreatic disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides the protein and coding sequences pf novel human G-protein coupled receptors, designated NOV1, NOV2, NOV3, NOV4, NOV5b, NOV6b, NOV6b, NOV6b, NOV8b, NOV8b, NOV9 and NOV10. These carbe used in the treatment of NOVX related diseases, including cancer, metabolic, neurodegenerative, immune, haematopoietic, developmental, retinal, feeding, neurological and psychotic diseases and disorders and infections. The present sequence is the NOV1 protein, the gene for which is found on chromosome 18. The NOV1 protein shares homology with the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  obesity
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                WO200181363-A1
                                                                                                                                                                                                         Human polypeptide
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                                              sapiens.
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                                                                                                                                                                                                                                                                                                          Protein;
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                                                                                                                                                                                                                                                                                                          394
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Pred. No. 2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hematopoietic disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.4e-61;
hes 132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and NOV10. These can
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     diabetes,
                                                                              disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
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INMYVLLPEND-

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YFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-NGG

YFKAKWETYFDHENTYDAPFCLNANENKSYKMMTQKGLYRIGFIEEVKAQILEMRYTKGK

-LSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMK

288

234 180 61 61 Matches

158;

Conservative

;88

Indels

14;

Gaps

MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV

NTAS----GYGNSSNSQSGLQS-QLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYI 115 MDSLYTANTKFCFDLFQEIGKDDRHKNIFFSPLSLSAALGMVRLGARSDSAHQIDEVLHF

120

60

**ECAEKLYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAV** NKTTEPLDQQAGSLNNESGLVSCYFGQLLSKLDRIKTDYTLSIANRLYGEQEFPICQEYL

DGVIQFYHTT IESVDFQKNPEKSRQEINFWVECQSQGKIKELFSKDAINAETVLVLVNAV

Similarity

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The invention relates to an isolated polypeptide comprising a 277, 480, CC 583, 581, 628, 424, 638, 229, 310, 841, 241, 369, 382, 185, 586, 1026, CC 844, 782, 262, 394, 471, 485, 286, 533, 495, 350, 619, 490, 462, 255, CC 784, 252, 593, 472, 607, 781, 640, 686 or 154 amino acid sequence as CC given in the specification. The polypeptides, modulators of the CC polypeptides and antibodies against the polypeptides are useful for CC treating diseases such as neurological and psychiatric diseases CC including Alzheimer's, parasupranuclear palsy, Huntington's disease, CC including congestive heart failure, Hodgkin's disease and myocardial infarction; respiratory diseases including asthma, chronic obstructive cc pulmonary disease, cystic fibrosis and adult respiratory distress CC syndrome; liver diseases including hypercholesterolaemia, cirrhosis, CC syndrome; liver diseases including hypercholesterolaemia, cirrhosis, CC syndrome; liver diseases including renal failure, acute tubular necrosis and glomerulonephritis; skeletal muscle diseases including CC cliseases including lymphagiectasia; diseases of placenta including CC choriocarcinoma; diseases of testes including testicular cancer, CC male reproductive diseases of testes including testicular cancer, and male
               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-APR-2000;
11-MAY-2000;
25-MAY-2000;
26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Agarwal
Lai Y,
                                                                                                            male reproductive diseases including low testosterone and male infertility; and disease of pancreas including diabetic ketoac Type 1 and 2 diabetes and obesity. The present sequence is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel polypeptides and polynucleotides useful as a vaccine preventing and treating diseases associated the polypeptide Alzheimer's disease, dyslipidemia, obesity, diabetes, inferasthma, ammesias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 90-91; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB;
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                                                                Sequence
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                                                                                                polypeptide of
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DB; ABA90345.
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Xie
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Q;
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2000US-203336P.
2000US-207087P.
2000US-207546P.
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                                                                                                invention.
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               39.3%;
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PLC.
Score 769; DB 2
Pred. No. 4e-61;
8; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         obesity, diabetes, infert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Smith
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                              23;
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                              Length 394;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infertility
                                                                                                                 ketoacidosis,
is a
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RESULT 15
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DE SCC a
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                 New DNA encoding squamous cell carcinoma antigen - scale antigen prodn. for use as diagnostic reagent also useful as hybridisation probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
Region
                                                                                                    N-PSDB;
                                                                                                                                                                 Kato H,
                                                                                                                                                                                                                                                                     30-NOV-1990;
                                                                                                                                                                                                                                                                                                              29-NOV-1991;
                                                                                                                                                                                                                                                                                                                                                     09-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Modified-site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosis;
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                                                                                                                                                                                                         (DAIN-) DAINABOT CO (DAIN-) DAINABOT KK.
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                                                                                                  1992-235415/29
DB; AAQ25817.
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                                                                                                                                                                 Sekiguchi K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LPQSTLFRADHPFLFVIR--KDDIILFSGKVSCP 380
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                                                                                                                                                                                                                                                                        90JP-0330155
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376..378
/note= "g
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93..95
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231..237
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antigen sequences"
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antigen sequences"
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antigen sequences"
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                                      allowing large
or immunogen,
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Best Local S
Matches 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                             carcinoma (SCC). The Ag (which can be isolated from SCC of the cervix uteri, pulmonary or oesophagal carcinoma, etc.) is known as a diagnostic reagent for SCC but is not easily produced on a large scale from human cancer cells. By expressing the DNA sequence encoding this protein, in e.g. E.coll, yeast or mammalian cells, Ag can be prepd. in large quantities. Ag can also be used as an immunogen (to produce encoding agenerates) also useful diagnostically) while the Agencoding gene can be detected by hybridisation with this sequence. Ag is homologous with serine protease inhibitors so may be useful therapeutically.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
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356
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                          347
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                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2;
                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                     GINMYVLLPE -- NDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYL
                                                                                                                                                                    IYFKGQWEKKFNKEDTKEEKFWPNKNTYKSIQMMRQYTSFHFASLEDVQAKVLEIPYKGK
                                                                                                                                                                                                                                                                                                    ----NTASGYGNSSNSQSG-LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDY
                                                                                                                                                                                                                                                                                                                                        MASLAAANAEFCENLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
---PASTNEEFHCNHPFLFFIRQNKTNSILFYGRFSSP
                                                                                                               DLSMIVLLPNQIDGLQKLEEKLTAEKLMEWTSLQNMRETRVDLHLPRFKVEESYDLKDTL
                                                                                                                                                                                                 VYFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-
                                                                                                                                                                                                                             LDAIKKFYQTSVESVDFANAPEESRKKINSWVESQTNEKIKNLIPEGNIGSNTTLVLVNA
                                                                                                                                                                                                                                                                                  DQVTENTTGKAATYHVDRSGNVHHQFQKLLTEFNKSTDAYELKIANKLFGEKTYLFLQEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 9-10, Fig 4; 21pp; German.
                          KQLPQST--LFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,
                                                                                                                                                                                                                                                                                                                                                                                                            38.4%;
                                                                                                                                                                                                                                                                                                                                                                                                Score 752; DB 13;
Pred. No. 1.4e-59;
1; Mismatches 126
390
                                                                                                                                                                                                                                                                                                                                                                                                                         Length 390;
                                                                                                                                                                                                                                                                                                                                                                                                  26;
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Search completed: July 11, 2003, 11:54:27 Job time : 219.046 secs

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Title:
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/cgn2_6/ptodata/1/1aa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/1/1aa/backfiles1.pep:*
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US-08-611-977-34
US-08-611-977-34
US-08-568-147B-2
US-09-266-910-3
US-09-266-910-4
US-08-121-714-8
US-08-477-112-8
PCT-US93-08322-4
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US-08-472-659-34
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| 30.2              | 31.8              | 31.8              | 31.8              | 32.8              | 32.9              | 32.9              | 32.9 .            | 32.9              | 33.4              | 33.4              | 33.4              | 33.4              | 33.7              |                   | 33.8              | 33.8              | 33.8              |
| 465               | 376               | 376               | 376               | 376               | 375               | 375               | 375               | 375               | 405               | 405               | 405               | 405               | 438               | 374               | 374               | 374               | 415               |
| w                 | ۳                 | 44                | ۳                 | 4                 | ഗ                 | N                 |                   | <u>,</u>          | v                 | N                 | _                 | Н                 | ۲                 | ٢                 | ۲                 | -                 | 4                 |
| US-08-948-997-6   | US-08-846-784-4   | US-08-385-500-4   | US-08-464-148-4   | US-09-200-965-2   | PCT-US93-08322-5  | US-08-477-112-5   | US-08-477-108A-5  | US-08-121-714-5   | PCT-US93-08322-7  | US-08-477-112-7   | US-08-477-108A-7  | US-08-121-714-7   | US-07-679-052A-17 | US-08-846-784-2   | US-08-385-500-2   | US-08-464-148-2   | US-09-026-408-4   |
| Sequence 6, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 2, Appli | Sequence 5, Appli | Sequence 5, Appli | Sequence 5, Appli | Sequence 5, Appli | Sequence 7, Appli | Sequence 7, Appli | Sequence 7, Appl1 | Sequence 7, Appli | Sequence 17, Appl | Sequence 2, Appli | Sequence 2, Appli | Sequence 2, Appli | Sequence 4, Appli |

## ALIGNMENTS

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; LENGTH: 380 amino acids
; TYPE: manino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-472-659-34
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                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 34, Application US/08474661 Patent No. 5874253 GENERAL INFORMATION:
                           COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/474,661
FILING DATE: 07-JUN-1995
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Sir
Matches 380;
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APPLICANT:
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APPLICANT:
             CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                TITLE OF INVENTION: NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                       APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. 58742530mi
                                                                                                                                                                                     STREET: George Ma
CITY: Alexandria
STATE: Virginia
                                                                                                                                                            COUNTRY: United States ZIP: 22313-1404
APPLICATION NUMBER:
                                                                                                                                                                                                                                   ADDRESSEE:
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                                                                                                                                                                                                                                                                              INVENTION: MEGAKARYOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FLFVIRKDDIILFSGKVSCP 380
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                                                                                                                                                                                                                   George Mason Bldg.,
                                                                                                                                                                                                                                                                                                                                                            IWASA, Fuyuki
TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
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ISHIDA, No. 5874253uhiro
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US 08/091,028
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Pred. No. 1e-178;
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Patent No. 5972886
GENERAL INFORMATION:

APPLICANT:

TSUJIMOTO, Masafumi IWASA, Fuyuki

5972886uo

APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:

APPLICANT:

APPLICANT:

TSUROŪOKA, NO. 59 NAKAZATO, Hiroshi MIURA, Kenju ISHIDA, NO. 59728

5972886uhiro

NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:

ADDRESSEE:

P.O.

Burns, Doa ). Box 1404

34 SS: Doane,

Swecker

δ.

APPLICANT: YAMAGUCHI, NO. 5972886omi TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR

KURIHARA, Tatsuya YAMAICHI, KOZO YAMAGUCHI, NO. 5972886omi Sequence 34,

1, Application US/08611977 5972886

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TELEFAX: (703) 5.7

TELEFAX: (703) 5.7

INFORMATION FOR SEQ ID NO: 3/
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TYPE: linear
RESULT 3
US-08-611-977-34
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Best Local Similarity
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APPLICATION NUMBER: JF 4-2
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JF 5-0
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: REA, TERESA STANEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 00 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: protein
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                                                                                                      DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
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Pred. No. 1
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; TELEFAX: (703) 836-2021
; INFORMATION FOR SEQ ID NO: 3
; SEQUENCE CHARACTERISTICS:
; LENGTH: 380 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-611-977-34
RESULT 4
US-08-568-147B-2
; Sequence 2, Application US/08568147B
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CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/611,977
FILING DATE: 06-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION UNMBER: US 08/091,028
EPILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION UNMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION UNMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
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380; Conserv
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                                                                                       FLFVIRKDDIILFSGKVSCP 380
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TELEX: 230 901 SANS UNFORMATION FOR SEQ ID NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: 800,952
FILING DATE: 02-DC-1991
ATTORNEY/AGENT INFORMATION:
NAME: D1G1g110, Frank S.
REGISTRATION NUMBER: 31,346
REFERENCE/DOCKET NUMBER: 8425
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APPLICANT: Kato, Hiroshi
APPLICANT: Sekiguchi, Kiyoshi
APPLICANT: Takeda, Katsumichi
TITLE OF INVENTION: DNA FRAGMENT CODING FOR SQUAMOUS CELL
TITLE OF INVENTION: CARCINOMA-ASSOCIATED ANTIGEN
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: TEM PC COMPOSING-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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CITY: Garden City
STATE: New Vanish
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: UZIP: 11530
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les 165; Conserv
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        KQLPQST--LFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                        RTMGMVDIFN-GDADLSGMTGSRGLVLSGVLHKAFVEVTEEGAEAAAATAVVGFGSS---
                                                        RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAAT-----GSNIVE 346
                                                                                                                                                                    IYFKGQWEKKFNKEDTKEEKFWPNKNTYKSIQMMRQYTSFHFASLEDVQAKVLEIPYKGK 239
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41.5%; Pred. No. 1.6e-63;
vative 81; Mismatches 126
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#1.30 (EPO)

Length 390;

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US-09-266-910-3
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US-09-266-910-3
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                                                         Sequence 4, Application Patent No. 6344362 GENERAL INFORMATION:
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO) CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/266,910
       TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
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                                            APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: single
                                                                                                                                                                                 356
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                                                                                                                                                                                                                                                                                                                                                                                                          175 VYFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRVNG-:||||:|:|| |:||:||:||
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MNSLSEANTKFMFDLFQQFRKSKEN-NIFYSPISIISALGMVLLGAKDNTAQQIKKVLHF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 38.1%; Score 747; DB 4; Similarity 41.2%; Pred. No. 4.8e-63; 64; Conservative 81; Mismatches 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                 KQLPQST--LFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IECAEKLYDAKVERVDFTNHLEDTRRNINKWVENETHCKIKNVIGEGGISSSAVMVLVNA 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---PASTNEEFHCNHPFLFFIRQNKTNSILFYGRFSSP 390
                                                                                                                                                                                 ---PASTNEEFHCNHPFLFFIRQNKTNSILFYGRFSSP
                                                                                                                                                                                                                                                 RTMGMVDIFN-GDADLSGMTGSRGLVLSGVLHKAFVEVTEEGAEAAAATAVVGFGSS
                                                                                                                                                                                                                                                                                  RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAAT-----GSNIVE 346
                                                                                                                                                                                                                                                                                                                    DLSMIVLLPNEIDGLQKLEEKLTAEKLMEWTSLQNMRETRVDLHLPRFKVEESYDLKDTL
                                                                                                                                                                                                                                                                                                                                                                                      IYFKGQWEKKFNKEDTKEEKFWPNKNTYKSIQMMRQYTSFHFASLEDVQAKVLEIPYKGK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DQVTENTTGKAATYHVDRSGNVHHQFQKLLTEFNKSTDAYELKIANKLFGEKTYLFLQEY
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   Use of a r
hepatitis
                                                                                             us/09266910
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                       a recombinant protein
       virus
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                                                                                                                                                                                                                                                                                                    Sequence 8, Application US/08121714 Patent No. 5470970
                                                                                                                                                                                                                                                                                Patent No. 5470970 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIDIM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 model 502 or 55SX
OPERATING SYSTEM: MS-DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 5.1)
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                            APPLICANT: Sager, Ruth
TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH
TITLE OF INVENTION: TUMOR SUPPRESSING ACTIVITY
NUMBER OF SEQUENCES: 8
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HYPOTHETICAL:
                                                                                                                                                                                            CORRESPONDENCE ADDRESS
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                                                                                           ZIP:
                                                                                                       COUNTRY:
                                                                                                                        STATE: Massachusetts
                                                                                                                                                           STREET:
                                                                                                                                                                               ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
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                                                                                                                                             Boston '
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIMGMVDIEN-GDADLSGMIGSRGLVLSGVLHKAFVEVIEEGAEAAAATAVVAFGSS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAAT-----GSNIVE 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISMIVILPNEIDGIQKLEEKLTAEKLMEWTSLQNMRETRVDLHLPRFKVEESYDLKDTL
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                                                                                                                                                           225 Franklin
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Pred. No. 7.5e-63;
31; Mismatches 127;
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RESULT 8
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                                                                                                                                                              Sequence 8, Applic
Patent No. 5801001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match 37.3%; Score 730.5; DB 1; Best Local Similarity 37.9%; Pred. No. 1.7e-61; Matches 146; Conservative 85; Mismatches 135;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Fraser, Janis K.
REGISTRATION NUMBER: 34,819
REFERENCE/DOCKET NUMBER: 00530/072001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
TELEFAX: (20154
INFORMATION FOR SEQ ID NO: 8:
                                                                                     GENERAL INFORMATION:
APPLICANT: Sager, Ruth
APPLICANT: 'Zou, Zhiqiang
APPLICANT: Anisowicz, Anthony
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 375
TYPE: amino acid
TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH TITLE OF INVENTION: TUMOR SUPPRESSING ACTIVITY NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/938,823
FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844,296
FILING DATE: 02/28/92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 02/28/91 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING
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                                                                                                                                                                               Application US/08477108A
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                                                                                                                                                                                                                                                                                                        LFRADHPFLFVIRKDDI--ILFSGK 376
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                                                                                                                                                                                                                                                                                                                                             LGVQDLFNRGKADLSGMSGARDLFVSKIIHKSFVDLNEEGTEAAAATAGTIMLAMLMPEE
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Best Local Similarity
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APPLICATION NUMBER: 09/01/93
FILING DATE: 09/01/93
APPLICATION NUMBER: 07/938
FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662
PILING DATE: 02/28/91
FILING DATE: 02/28/91
ATTORNEY/AGENT INFORMATION:
NAME: FRASET, Janis K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PS/2 model 502 or 55SX OPERATING SYSTEM: MS-DOS (Version 5.0 SOFTWARE: Wordperfect (Version 5.1) CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 375
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/477,108A FILING DATE: June 7, 1995 CLASSIFICATION: 536
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                                                                                                                                                                                                                                 LLPEN-----DLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA 293
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(617) 542-8906
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37.9%;
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Pred. No. 1.7e-61;
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Best Local :
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CURRENT APPLICATION DATA:
APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
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APPLICATION NUMBER: 0
FILING DATE: 09/01/93
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
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TITLE OF INVENTION: MAS
TITLE OF INVENTION: TU
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FILING DATE: 02/28/91
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: 07/
APPLICATION NUMBER: 07/
07/00 07/01/92
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ADDRESSEE: Fish & Richardson P.C.
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FILING DATE: 09/01/20
APPLICATION NUMBER: 07
APPLICATION NUMBER: 07/28/92
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                                                                                                                          MYGAELASVDFQQAPEDARKEINEWVKGQTEGKIPELLVKGMVDNMTKLVLVNAIYFKGN
LLPDDIEDESTGLEKIEKQLTLEKLREWTKPENLYLAEVNVHLPRFKLEESYDLTSHLAR 290
                                                             WQEKFMKEATRDAPFRLNKKDTKTVKMMYQKKKFPYNYIEDLKCRVLELPYQGKELSMII
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Mismatches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 34,819
REFERENCE/DOCKET NUMBER: 005
TELECOMMUNICATION INFORMATION:
TELEPHONE: /617 617
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MEDIUM TYPE: 3.5" Diskette,
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REGISTRATION NUMBER:
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181 WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-GINMYV
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                                                                                                                                                  Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                          NFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 34,819
REFERENCE/DOCKET NUMBER: 00530/072001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: F1sh 6 R1
                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY AGENT INFORMATION:
NAME: Fraser, Janis K.
REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PS/2 Model 50z or 55s;
OPERATING SYSTEM: MS-DOS (Version 5
SOFTWARE: WoddPerfect (Version 5.1)
CURRENT APPLICATION DATA:
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MEDIUM TYPE: 3.5" Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: MASPIN, A NOVEL SERPIN WITH TITLE OF INVENTION: TUMOR SUPPRESSING ACTIVITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 07, FILING DATE: 09/01/92 APPLICATION NUMBER: 07, FILING DATE: 02/28/92 APPLICATION NUMBER: 07, FILING DATE: 02/28/91
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION: 536
                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
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                                                                                                                                                                                                                                              STRANDEDNESS:
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                                                                                                                                                                                                                                                                                   LENGTH:
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                                                                                                                               Similarity 38.6
50; Conservative
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                                                    MEQLSSANTREALDLELALSENNPAGNIFISPESISSAWAMVELGTRGNTAAQLSKTEHE
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WTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDY,IECAEK 120
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                                                                                           MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
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                                                                                                                           36.9%; Score 722.5; DB 1; 38.6%; Pred. No. 1e-60; tive 74; Mismatches 146;
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US-08-477-108A-4
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APPLICATION NUMBER: 09/01/93
FILING DATE: 09/01/93
APPLICATION NUMBER: 07/938
FILING DATE: 09/01/92
APPLICATION NUMBER: 07/844
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662
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                                                                                           INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08,
FILING DATE: June 7, 1995
CLASSIFICATION: 536
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 06
TELECOMMUNICATION INFORMATION:
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ADDRESSEE: Fish & Richardson P.C.
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OPERATING SYSTEM: M
SOFTWARE: WordPerfe
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                                                                                                                                                                                                     NAME: Fraser, Janis K. REGISTRATION NUMBER: 34,819
TOPOLOGY: 11
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02110-2804
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                                   amino acid
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                                                                                                                             (617) 542-8906
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MS-DOS (Version 5.0
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RESULT 13
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Patent No. 5905023
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APPLICANT: Sager, Ruth
TITLE OF INVENTION: MAS
TITLE OF INVENTION: TO
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                                                                                                                                                            APPLICATION: 536
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/
APPLICATION NUMBER: 08/
09/01/93
                              APPLICATION NUMBER: 07/844
FILING DATE: 02/28/92
APPLICATION NUMBER: 07/662
FILING DATE: 02/28/91
ATTORNEY/AGENT INFORMATION:
NAME: Fraser, Janis K.
                                                                                                                                                                                                                                                                                                                 ZIP: U4110 201
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
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ADDRESSEE: Fish & Richardson P.C.
                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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                                                                                                                                     APPLICATION NUMBER: 0: FILING DATE: 09/01/92
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OPERATING SYSTEM: MS-DOS (Version
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            r, Janis K.
NUMBER: 34,819
NUMBER:
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                                                                                    07/662,216
                                                                                                                    07/844,296
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06570/002003
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Best Local Similarity
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                                                                                                                     COMPUTER: IBM PS/2 Model 502 or 558
OPERATING SYSTEM: MS-DOS (Version 5.1)
SOFTWARE: WordPerfect (Version 5.1)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/08322
                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: 3.5" Diskette,
                                                                                                                                                                                                                                                                                                                                     APPLICANT: Sager, Ruth
TITLE OF INVENTION: MASPIN, A I
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
              PRIOR APPLICATION DATA:
APPLICATION NUMBER: 0
FILING DATE: 09/01/92
APPLICATION NUMBER: 0
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TELEFAX: (617) 542-8906
TELEX: 200154
                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                      STREET: 225
CITY: Boston
                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                   COUNTRY:
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02110-2804
DATE:
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02/28/92
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                  07/844,296
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SOFTWARE: PatentIn Ver.
SEQ ID NO 110
LENGTH: 391
TYPE: PRT
ORGANISM: Homo sapiens
US-09-123-912-110
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US-09-123-912-110
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                                                                                                                                                                                                                                                                                                                                 Sequence 110, Application US/09123912A Patent No. 6312695
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                                                                                                            APPLICANT: Reed, Steven G.
APPLICANT: Wang, Tongtong
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR THERAPY OF LUNG CANCER
FILE REFERENCE: 210121.455C1
CURRENT APPLICATION NUMBER: U$/09/123,912A
CURRENT FILING DATE: 1998-07-27
PRIOR APPLICATION NUMBER: 09/040,802
PRIOR APPLICATION NUMBER: 09/040,802
PRIOR FILING DATE: 1998-03-18
NUMBER OF SEQ ID NOS: 114
SCHTMARF: BATERITT VET 2 0
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TELEX: 200154
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 379
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REGISTRATION NUMBER: 34,819
REFERENCE/DOCKET NUMBER: 00530/072001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-8906
TELEFAX: (617) 542-8906
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ATTORNEY/AGENT INFORMATION:
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                                                                                                       PatentIn Ver.
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Query Match

36.5%;

Score 715.5;

DB 4;

Length 391;

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GETVTSAPGHENVHCNHPELFFIRHNESNSILFFGRESSP 391
                     NIVEKQLPQSTLFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                                              KNYEMKQYLRALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGS 342
                                                                                                                                                                    LELRY-NGGINMYVLLPENDLSEIE---NKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIE 282
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                                                                         DSYDLEAVLAAMGMGDAFSEHKADYSGMSSGSGLYAQKFLHSSFVAVTEEGTEAAAATGI
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                                                                                                                                                  LGIPYKNNDLSMFVLLP-NDIDGLEKIIDKISPEKLVEWTSPGHMEERKVNLHLPRFEVE
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Search completed: July 11, 2003, 12:02:13 Job time: 68.9418 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Sequence:
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/cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
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Sequence 34, Appl
Sequence 62, Appl
Sequence 67, Appl
Sequence 946, Appl
Sequence 946, Appl
Sequence 246, Appl
Sequence 29, Appl
Sequence 29, Appl
Sequence 29, Appl
Sequence 29, Appl
Sequence 27, Appl
Sequence 28, Appl
Sequence 27, Appl
Sequence 947, App
Sequence 947, App
Sequence 1100, Ap
Sequence 110, App
Sequence 110, App
                                                                                                                                                                                                                                                          Description
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| 476.5             | 477.5             | 498.5             | 498.5             | 544               | 544               | 566             | 592               | 592               | 600.5             | 608               | 642                | 652               | 652              | 654               | 661                | 662.5           | 664.5              | 664.5             | 672.5             | 715               | 715                | 715               | 715                | 715.5             | 715.5              |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|------------------|-------------------|--------------------|-----------------|--------------------|-------------------|-------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| 24.3              | 24.4              | 25.4              | 25.4              | 27.8              | 27.8              | 28.9            | 30.2              | 30.2              | 30.7              | 31.0              | 32.8               | 33.3              | 33.3             | 33.4              | 33.7               | 33.8            | 33.9               | 33.9              | 34.3              | 36.5              | 36.5               | 36.5              | 36.5               | 36.5              | 36.5               |
| 402               | 217               | 410               | 410               | 377               | 377               | 464             | 465               | 465               | 377               | 315               | 459                | 948               | 409              | 385               | 374                | 415             | 423                | 415               | 340               | 400               | 400                | 400               | 400                | 391               | 391                |
| 9                 | 10                | 10                | 9                 | 10                | 9                 | 10              | 10                | 9                 | 9                 | 7                 | 10                 | 9                 | 9                | 9                 | 9                  | 10              | 9                  | 9                 | 10                | 10                | 10                 | 10                | ø                  | 10                | 10                 |
| US-10-135-629-4   | US-09-729-674-134 | US-09-957-485-2   | US-09-987-021-2   | US-09-910-430-27  | US-10-165-605A-27 | US-09-414-834-1 | US-09-957-485-6   | US-09-987-021-6   | US-09-823-187-31  | US-08-731-566-4   | US-09-925-300-1440 | US-10-267-311-21  | US-10-267-311-55 | US-09-847-208-101 | US-09-974-298-95   | US-09-902-684-4 | US-10-106-698-4538 | US-10-017-128-4   | US-09-764-898-169 | US-09-897-778-112 | US-09-850-716A-112 | US-09-735-705-112 | US-09-466-396A-112 | US-09-897-778-110 | US-09-850-716A-110 |
| Sequence 4, Appli | Sequence 134, App | Sequence 2, Appli | Sequence 2, Appli | Sequence 27, Appl | Sequence 27, Appl | •               | Sequence 6, Appli | Sequence 6, Appli | Sequence 31, Appl | Sequence 4, Appli | Sequence 1440, Ap  | Sequence 21, Appl | ~                | Sequence 101, App | Sequence 95, Appl. |                 | Sequence 4538, Ap  | Sequence 4, Appli | `                 | Sequence 112, App | 112                | Sequence 112, App | Sequence 112, App  | Sequence 110, App | Sequence 110, App  |

## ALIGNMENTS

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INSIDENTIAL US/10091442

RESULT 1

US-10-091-442-34

Sequence 34, Application US/10091442

Patent No. US20020164711A1

GENERAL INFORMATION:

APPLICANT: TSUJIMOTO, Masafumi

TUMASA, ENJU

USANGUCHI, No. US20020164711A1uhiro

KURHIARA, Tatsuya

YAMAICHI, No. US20020164711A1uhiro

YAMAICHI, No. US2002016471A711A1uhiro

YAMAICHI, No. US2002016471A1uhiro

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Matches
                                                                                                                                                                                                                                           Sequence 34, Application U Patent No. US20010026931A1 GENERAL INFORMATION:
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                                                                                                                                                                      APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                APPLICANT:
                                                                      CORRESPONDENCE ADDRESS:
                                                                                   TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                 APPLICANT:
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 STATE: V
                                                         ADDRESSEE:
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ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAN, MAICOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                       Application US/09140719
                                          E: Burns, Doa P.O. Box 1404
                                                                                                              KURIHARA, Tatsuya
YAMAICHI, Kozo
YAMAGUCHI, No. US20010026931A1omi
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ilarity 100.0%;
Conservative 0
                                                                                                                                                                      MIURA, Kenju
                                                                                                                                                                                     TSUROUOKA, No. US20010026931A1uo NAKAZATO, Hiroshi
                                                                                                                                                         ISHIDA, No. US20010026931Aluhirc
                                                                                                                                                                                                               IWASA, Fuyuki
                                                                                                                                                                                                                              TSUJIMOTO, Masafumi
States
                                                       Doane,
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                                                         Swecker &
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Pred. No. 6.8e-161;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 380; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY_AGENT INFORMATION:
NAME: MCGOWAN MAICOLM K.
REGISTRATION NUMBER: 39.000
REFERENCE_DOCKET NUMBER: 001560-2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (703) 836-20 TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA: APPLICATION UMBER: US/09/140.710 FILTUR DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
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                                                                     DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
                                                                                                                                        LPENDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRALGLKDIF
                                                                                                                                                                                                        WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
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   380
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Pred. No. 6.8e-161;
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RESULT 3 US-10-198-070-62

360

300

240

300

120 120 180 180 240 60

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Sequence 62, Application US/10198070 Publication No. US20030109437A1

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GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND OTHER
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003.000008
CURRENT APPLICATION NUMBER: US/10/198,070
CURRENT FILING DATE: 2002-07-19
PRIOR APPLICATION NUMBER: 60/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/331,477
PRIOR APPLICATION NUMBER: 60/331,477
PRIOR FILING DATE: 2001-11-16
NUMBER OF SEQ ID NOS: 125
SOFTWARE: PATENTIN VET. 2.1
SEQ ID NO 62
LENGTH: 392
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                                    APPLICANT: AVERBACK, PAUL
APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN TH
TITLE OF INVENTION: CONDITIONS REQUIRING TH
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003,000008
CURRENT APPLICATION NUMBER: US/10/198,070
CURRENT APPLICATION NUMBER: 00/306,161
PRIOR APPLICATION NUMBER: 00/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
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; ORGANISM: Homo sapiens
US-10-198-070-62
                                                                                                                                                                                                                                                             Sequence 67, Application US/10198070 Publication No. US20030109437A1 GENERAL INFORMATION:
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APPLICATION NUMBER: 60/306,150 FILING DATE: 2001-07-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGINMYVLLPEN--DLSEIENKLTFONLMEWINPRRMISKYVEVFFPQFKIEKNYEMKQY 290
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TIYFKGQRQNKFQVRETVKSPFQLSEGKNVTVEMMYQIGTFKLAFVKEPQMQVLELPYVN
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                                                                                                                                                                        THE TREATMENT OF TUMORS AND OTHER THE REMOVAL OR DESTRUCTION OF
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SOFTWARE: Patentin Ver. :
SEQ ID NO 67
LENGTH: 392
TYPE: PRT
ORGANISM: Homo sapiens
US-10-198-070-67
                                                                                                                                                                                                          APPLICANT: AVERBACK, PAUL
APPLICANT: GEMMELL, JACK
APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THI
TITLE OF INVENTION: CONDITIONS REQUIRING THI
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003.0000008
FILE REFERENCE: 59003.0000008
CURRENT APPLICATION NUMBER: 00/306,161
PRIOR APPLICATION NUMBER: 60/306,161
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR APPLICATION NUMBER: 60/30,150
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-07-19
PRIOR FILING DATE: 2001-11-16
NUMBER OF SED ID NOS: 125
                                                                                    ; ORGANISM: HOMO US-10-198-070-70
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US-10-198-070-70
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Best Local Similarity
Matches 169; Conserv
  Query Match
Best Local Similarity
Matches 169; Conserv
                                                                                                                                                                      SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 70
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PRIOR FILING DATE: 2001-11-16
NUMBER OF SEQ ID NOS: 125
SOFTMARE: Patentin Ver. 2.1
                                                                                                                                                  LENGTH: 392
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  41.8%; ilarity 43.1%; Conservative {
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43.1%; Pred. No. 1.3e-62;
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Score 819; DB 9;
Pred. No. 1.5e-62;
0; Mismatches 131;
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; ORGANISM: Homo US-10-012-896-946
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US-10-012-896-946
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                                                                     NUMBER OF SEQ ID NOS: 1011
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 946
LENGTH: 379
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 Query Match
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APPLICANT:
APPLICANT:
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APPLICANT:
APPLICANT:
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                                                                                                                               CURRENT APPLICATION NUMBER: US/10/012,896
CURRENT FILING DATE: 2001-12-10
                                                                                                                                                          APPLICANT: Wantanabe, Yoshihiro
APPLICANT: Meagher, Madeleine Joy
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xu, Jiangchun
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                                                                                                                                                                                                                                               Foy,
                                                                                                                                                                                                                                                           McNeill, Patricia D.
Houghton, Raymond L.
Vinals de Bassols, Carlota
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Hepler, William T.
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                                                                                                                                                                                                                                 Fanger, Gary R.
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Stolk, John A.
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Kalos, Michael D.
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 40.78;
 Score 796.5;
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 Query Match
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; ORGANISM: HOMO US-09-895-814-946
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                                                                SOFTWARE: FastSEQ for Windows Version SEQ ID NO 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL
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                                                                                                                  CURRENT APPLICATION NUMBER: US/09/895,814
CURRENT FILING DATE: 2001-06-29
                                                                                                                                               APPLICANT: FRAGER, GATY R.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER FILE REFERENCE: 210121.427C26
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                               LENGTH: 379
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   286 SLLKPLGVTDLFNQVKADLSGMSPTKGLYLSKAIHKSYLDVSEEGTEAAAAATGDSIAVKS
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Mitcham, Jennifer L.
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Houghton, Raymond L.
Vinals de Bassols, Carlota
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Hepler, William T.
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Li, Samuel X.
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                                                                                                                                                                                                                                                                                                                                                                                                                          Day, Craig H.
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               sapiens
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                                                                                                                                                                                                                                                                                        John
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40.78;

Score 796.5;

DB 9;

Length

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APPLICANT: Taupler, Namurcally
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAMI
FILE REFERENCE: 15966-745
CURRENT APPLICATION NUMBER: US/09/823,187
CURRENT FILING DATE: 2001-03-29
PRIOR APPLICATION NUMBER: 60/193,339
PRIOR FILING DATE: 2000-03-30
PRIOR APPLICATION NUMBER: 60/193,205
PRIOR APPLICATION NUMBER: 60/193,205
PRIOR APPLICATION NUMBER: 60/195,343
PRIOR FILING DATE: 2000-04-05
PRIOR APPLICATION NUMBER: 60/195,088
PRIOR FILING DATE: 2000-04-05
PRIOR APPLICATION NUMBER: 60/195,005
PRIOR APPLICATION NUMBER: 60/195,005
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR PRIOR DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/195,792
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PRIOR APPLICATION NUMBER: 60/195,792
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OR APPLICATION NUMBER: 60/196,556
OR FILING DATE: 2000-04-11
OR APPLICATION NUMBER: 60/197,081
OR FILING DATE: 2000-04-13
OR APPLICATION NUMBER: 60/197,525
OR FILING DATE: 2000-04-14
OR APPLICATION NUMBER: 60/197,087
OR APPLICATION NUMBER: 60/197,087
OR FILING DATE: 2000-04-14
DATE: 2000-04-14
OR APPLICATION NUMBER: 60/197,087
OR FILING DATE: 2000-04-14
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Shimkets, Richard A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Majumder, Kumud
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Liu, Xiaohong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Spytek, Kimberly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Spaderna,
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Conservative
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                                     PRIOR APPLICATION NUMBER: 60/193,339
PRIOR FILING DATE: 2000-03-30
PRIOR PELICATION NUMBER: 60/193,205
PRIOR APPLICATION NUMBER: 60/193,205
PRIOR APPLICATION NUMBER: 60/195,343
PRIOR APPLICATION NUMBER: 60/195,343
PRIOR APPLICATION NUMBER: 60/195,088
PRIOR APPLICATION NUMBER: 60/195,088
PRIOR APPLICATION NUMBER: 60/195,005
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR FILING DATE: 2000-04-10
PRIOR FILING DATE: 2000-04-10
PRIOR FILING DATE: 2000-04-10
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Best Local
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                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/823,187
CURRENT FILING DATE: 2001-03-29
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TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING
FILE REFERENCE: 15966-745
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                    PRIOR
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  FILING DATE: 2000-04-J
APPLICATION NUMBER: 60
FILING DATE: 2000-04-J
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Similarity 40.3%;
59; Conservative 8
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Shimkets, Richard A
Spaderna, Steven K
Spytek, Kimberly
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Padigaru, Muralidhar
                         60/196,556
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Pred. No. 2e-58;
9; Mismatches 132;
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RESULT 10
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-823-187-29
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                            CURRENT FILING DATE: 2001-03-29
PRIOR APPLICATION NUMBER: 60/193,339
PRIOR FILING DATE: 2000-03-30
PRIOR APPLICATION NUMBER: 60/193,205
PRIOR FILING DATE: 2000-03-30
PRIOR FILING DATE: 2000-04-05
PRIOR FILING DATE: 2000-04-05
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PRIOR APPLICATION NUMBER: 60/19
PRIOR FILLING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/19
PRIOR FILING DATE: 2000-04-14
NUMBER OF SEQ ID NOS: 103
SOFTWARE: Patentin Ver. 2.1
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Publication No.
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                                                                                                                                   APPLICANT: Taupier, Raymond J
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC FILE REFERENCE: 15966-745
CURRENT APPLICATION NUMBER: US/09/823,187
CURRENT FILING DATE: 2001-03-29
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APPLICANT:
APPLICANT:
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APPLICATION NUMBER: 60/195,088 FILING DATE: 2000-04-06
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Shimkets, Richard A
Spaderna, Steven K
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Padigaru, Muralidhar
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41.5%; Pred. No. 9.2e-57;
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US-09-823-187-27
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US-09-823-187-30
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APPLICANT: Burgess, Catherine
APPLICANT: Gusev, Vladimir Y
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LENGTH: 390
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APPLICANT:
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Best Local
                                            APPLICANT: Patturajan, Meera
APPLICANT: Shimkets, Richard A
APPLICANT: Spaderna, Steven K
APPLICANT: Spytek, Kimberly
APPLICANT: Taupier, Raymond J
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS
FILE REFERENCE: 15966-745
            CURRENT APPLICATION NUMBER: US/09/823,187
CURRENT FILING DATE: 2001-03-29
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Padigaru, Muralidhar
                                                                                                                                                                                                       Liu, Xiaohong
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233 179

299 291

355

174 119

ENCODING SAME

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PRIOR FILING DATE: 2000-04-14
NUMBER OF SEQ ID NOS: 103
SOFTWARE: Patentin Ver. 2.1
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PRIOR APPLICATION NUMBER: 60/197,087
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                                                                                                                                                                                                               240 DLSMIVLLPNEIDGLQKLEEKLTAEKLMEWTSLQNMRETRVDLHLPRFKVEESYDLKDTL
                        KQLPQST--LFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                                                                                                                                                                                                                                                                                                                                                      RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAAT-----GSNIVE 346
                                                                                                                                                                                                                                        GINMYVLLPE--NDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYL
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---PTSTNEEFHCNHPFLFFIRQNKTNSILFYGRFSSP
                                                                                                        RTMGMVDIFN-GDADLSGMTGSRGLVLSGVLHKAFVEVTEEGAEAAAATAVVGFGSS---
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60/193,205

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Sequence 28, Application US/09823187
Publication No. US20030096952A1
GENERAL INFORMATION:
APPLICANT: Burgess, Catherine
APPLICANT: Gusev, Vladimir y
APPLICANT: Liu, Xiaohong
APPLICANT: Majunder, Kumud
APPLICANT: Padigaru, Muralidhar
APPLICANT: Patturajan, Meera
APPLICANT: Shinkets, Richard A
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US-09-823-187-28
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; ORGANISM: Homo sapiens
US-09-823-187-27
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Best Local Similarity 40.8%;
Matches 160; Conservative 8
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EQ ID NO 27
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PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2000-04-14
NUMBER OF SEQ ID NOS: 103
      APPLICANT:
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R FILLING DATE: 2000-04-06
DR APPLICATION NUMBER: 60/195,792
DR FILLING DATE: 2000-04-10
DR APPLICATION NUMBER: 60/196,556
DR FILLING DATE: 2000-04-11
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R FALLICATION NUMBER: 60/19
R FILING DATE: 2000-03-30
R APPLICATION NUMBER: 60/19
R FILING DATE: 2000-04-05
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Majumder, Kumud
Padigaru, Muralidhar
Patturajan, Meera
Shimkets, Richard A
Spaderna, Steven K
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                                                                                                                                                                                                                                                                                            TNEEFCCNHPFLFFIRQNKTNSILFYGRFSSP
                                                                                                                                                                                                                                                                                                                                                                                          RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQ
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; Pred. No. 2e-56;
84; Mismatches 134
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RESULT 13 US-08-731-566-2

Sequence 2, Application US/08731566 Publication No. US20030072752A1 GENERAL INFORMATION:

APPLICANT:

Toshihiko Hibino et al.

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NUMBER OF SEQ ID NOS: 103
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 28
LENGTH: 390
TYPE: PRT
ORGANISM: Homo sapiens
US-09-823-187-28
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Best Local S
Matches 159
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PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/195,005
PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR FILING DATE: 2000-04-10
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CURRENT FILING DATE: 2001-03-29
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PRIOR APPLICATION NUMBER: 60/196,556
PRIOR FILING DATE: 2000-04-11
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PRIOR FILING DATE: 2000-03-90
PRIOR APPLICATION NUMBER: 60/195,343
PRIOR FILING DATE: 2000-04-05
PRIOR PRIOR PRIOR DATE: 2000-04-05
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TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING
FILE REFERENCE: 15966-745
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Local Similarity 40.6%;
les 159; Conservative 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
DQVTENTTEKAATYHVDRSGNVHHQFQKLLTEFNKSTDAYELKIANKLFGEKTYQFLQEY 119
                                                                                                                   RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKOLPO 351
                                                                                                                                                               DLSMIVLLPNEIDGLQKLEEKLTAEKLMEWTSLQNMRETCVDLHLPRFKMEESYDLKDTL
                                                                                                                                                                                                                                             IYFKGQWENKFKKENTKEEKFWPNKNTYKSVQMMRQYNSFNFALLEDVQAKVLEIPYKGK
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                                                                                                                                                                                                                                                                                                                                                                                                                                  ----NTASGYGNSSNSQSG-LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDY 114
                                                                                 RIMGMVNIEN-GDADLSGMIWSHGLSVSKVLHKAFVEVIEEGVEAAAATAVVVFELSSPS
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Pred. No. 5.5e-56;
14; Mismatches 135;
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Best Local Similarity 41.0%;
Matches 163; Conservative 8
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 60/013,755
FILING DATE: 20-MAR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 35,965
REFERENCE/DOCKET NUMBER: MGI
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/005,679
FILING DATE: 17-OCT-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                            120
                                                                                                                                                      240 DLSMIVLLPNEIDGLQRLEEELTAEKLMEWTSLQNMRETRVDLHLPRFKVEESYDLKDTL
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                                                                                                                                                                                                                                                                                                                                                                                        61 ----NTASGYGNSSNSQSG-LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDY 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             amino acids
                                                                                                                     RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAAT-----GSNIVE 346
                                                                                                                                                                                    GINMYVLLPE--NDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYL
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                                                   KQLPQST--LFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                                                                                                                                                                                                                       LDAIKKFYQTSVESVDFANAPEESRKKINSWVESQTNEKIKNLIPEGNIGSNTTLVLVNA
                                                                                                                                                                                                                      IYFKGQWEKKFNKEDTKEEKFWPNKNTYKSIQMMRQYTSFHFASLEDVQAKVLEIPYKGK
                                                                                                                                                                                                                                                                                                        IECAEKLYDAKVERVDETNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMYLVNA 174
                                                                                                                                                                                                                                                                                                                                                          DQVTENTTGKAATYHVDRSGDVHHQFQKLLTEFNKSTDAYELKIANKLFGEKTYLFLQEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Massachusetts
                                                                                    RTMGMVDIFN-GDADLSGMTGSRGLVLSGVLHKAFVEVTEEGAEAAAATAVVGFGSS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PatentIn Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28 State Street
                      PTSTNEEFHCNHPFLFFIRQNKTNSILFYGRFSSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (617)227-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-OCT-1996
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Pred. No. 1e-55;
1; Mismatches .1
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                      390
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 947
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL
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                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILE REFERENCE: 210121.427C27
CURRENT APPLICATION NUMBER: US/10/012,896
CURRENT FILING DATE: 2001-12-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Meagher, Madeleine Joy
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCATION: 90, 215, 225, 232, 233, 289, LOCATION: 369, 374, 378, 425, 430
OTHER INFORMATION: Xaa = Any Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 28.88;
     193
                                                                     193
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                                  241 GFCWFFLLYFLQIFIFPLLSDNNFYHRAPNWRLGILRFSGRGENPFFSXRSLGLFFPYIL
                                                                                                                                                                                                                                                                                                                                                                          178;
                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                     61 ----NTASGYGNSSN-SQSG-LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKD
                                                                                                                                                                                                                                                                                                          --
                                                                                                                                                                                                                                                                                                                           AIYFKGQWQNKFQVRETVKSPFQLSEVSILFSDSXQMLEDTIIIXGQFRKMXXFSENIGL
                                                                                                                                     AVYFKGKWQSAFTKSETIN-----
                                                                                                                                                                                                       YIECAEKLYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVN 173
                                                                                                                                                                                                                                      SHTVDSLKPGFKDSPKCSQAGRIHSEFGVXFSQINQPDSNCTLSIANRLYGTKTMAFHQQ
                                                                                                                                                                                                                                                                                                          MGSLSTANVEFCLDVFKELNSNNIGDNIFFSSLSLLYALSMVLLGARGETAEQLEKVLHF
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Mitcham, Jennifer L.

'--ker, Susan L.
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Carter, Darrick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wantanabe,
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Houghton, Raymond L.
Vinals de Bassols, Carlota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hural,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Henderson, Robert A.
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Hepler, William
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wang, Aijun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Li, Samuel X.
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                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              John
      ---CHF----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yoshihiro
                                                                                                                                                                                                                                                                                                                                                                        81; Mismatches
                                                                                                                                                                                                                                                                                                                                                                     Score 738.5; DB y;
Pred. No. 2.6e-55;
"'immatches 121;
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289, 309,

318,

322,

332,

THERAPY AND

Length 617; Indels

237;

Gaps

60

60

RESULT 14

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301 WLCSPAAHXGYLCYFFFXRVSXGKIKKKMIXXYILFLPTKIMLAKNPDFVFGRPSYLYIL 360

-KSPK----

199

300

192 240 192

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180

| Any amino acid                                                                 |
|--------------------------------------------------------------------------------|
|                                                                                |
| Windows Version 3                                                              |
| UMBER: US/09/895,814<br>2001-06-29<br>990                                      |
| TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER FILE REFERENCE: 210121.427C26 |
| R. AND MET                                                                     |
| ols, Carlota                                                                   |
| McNeill, Patricia D.                                                           |
| Henderson, Robert A.<br>Hural, John                                            |
| Skeiky, Yasır A.W.<br>Hepler, William T.                                       |
|                                                                                |
|                                                                                |
| g H.                                                                           |
| Retter, Marc W.                                                                |
| Yuqiu<br>Michael D                                                             |
| Jennifer L.<br>r. Susan L.                                                     |
| Ċ.                                                                             |
|                                                                                |
| 47<br>Application US/09895814<br>D. US20020193296A1                            |
| RHTHTNTILECGKLASP 617                                                          |
| KDDIILFSGKVSCP 380                                                             |
| DLSGMSPTKGLYLSKAIHKSYLDVSEEGTEAAAATGDSIAVKSLPMRAQFKANHPFLFFI                   |
| DLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHPFLFVI                   |
| LKQIEKQLNSGTFHEWTSSSNMMEREVEVHLPRFKLETKYELNSLLKSLGVTDLFNQVKA                   |
| LSEIENKLTFONLMEWTNPRRWTSKYVEVFFPOFKIEKNYEMKOYLRALGLKDIFDESKA                   |
| ILXSFSSXQGKNVTVEMMYQIGTFKLAFVKEPQMQVLELPYVNNKLSMIILLPVGIAN                     |
| -AVAMMHQERKFULSVIEDPSMKILELRY-NGGINMYVLLPEN-                                   |
|                                                                                |
|                                                                                |

|  | Qy 366 RKDDIILFSGKVSCP 380 | 541           | 306                                          | Db 481 LKQIEKQLNSG                          | 376                                             | 202 -                                  | Db 361 LEQFSLXPXLI | Qy 200 | Db 301 WLCSPAAHXGY                        | Qу 193 | Db 241 GFCWFFLLYFL                       | Оу 193 -, | Db 181 AIYFKGQWQNK                        | Qy 174 AVYFKGKWQSA | Db 121 YLSCSEKWYQA                        | Qy 114 YIECAEKLYDA                        | Db 61 SHTVDSLKPGF                         | QY 61NTASGY                               |
|--|----------------------------|---------------|----------------------------------------------|---------------------------------------------|-------------------------------------------------|----------------------------------------|--------------------|--------|-------------------------------------------|--------|------------------------------------------|-----------|-------------------------------------------|--------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
|  | GKVSCP 380                 | : : :    :: : | JY ISRWMHKSY I EVTEEGTEATAATGSNIVEKQLPQSTLFI | MINISTER FRANCISCO   PROFESSIONAL BENEVILLE | JGANVIVERMAIQ IGTE ALAE VAGEOMQVILLEFI VINALSH. | -GKAVAMMHQERKFNLSVIEDPSMKILELRY-NGGINM |                    | CS     | (LCYFFFXRVSXGKIKKKMIXXYILFLPTKIMLAKNPDFVI | CHF    | LQIFIFPLLSDNNFYHRAPNWRLGILRFSGRGENPFFSXR |           | KFQVRETVK.SPFQLSEVSILFSDSXQMLEDTIIIXGQFRK | \FTKSETIN          | NRLQTVDFEQSTEETRKTINAWVENKTNGKVANLFGKSTII | AKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGIS | TKDSPKCSQAGRIHSEFGVXFSQINQPDSNCTLSIANRLYC | KGNSSN-SQSG-LQSQLKRVFSDINASHKDYDLSIVNGLEV |

Search completed: July 11, 2003, 12:37:36 . Job time : 112.393 secs

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Score

## ALIGNMENTS

Minimum

DB DB

Title: Perfect score:

Scoring table: Sequence:

## A; Molecule type: mRNA A; Residues: 1-350, 'G', 352-390 <SIL> A; Cross-references: EMBL:U19556; NID:g1276435; PID:g1052869 A; Cross-references: EMBL:U19556; NID:g1276435; PID:g1052869 R; Suminami, Y:; Kishi, F:; Sekiguchi, K:; Kato, H. Blochem. Blophys. Res. Commun. 181, 51-58, 1991 A; Title: Squamous cell carcinoma antigen is a new member of the serine protease inhib A; Title: Squamous cell carcinoma antigen is a new member of the serine protease inhib A; Title: Squamous cell carcinoma antigen is a new member of the serine protease inhib A; Reference number: JT0966; MUID:92068241; PMID:1958219 A; Accession: JT0967 A; Cross-references: GB:S66896; NID:g239551; PIDN:AAB20405.1; PID:g239552 A; Accession: JT0967 A;Cross-references: GDB:625364; OMIM:600517 A;Map position: 18q21.3-18q21.3 A;Introns: 55/3; 74/3; 117/3; 157/1; 204/3; 256/3 C;Superfamily: antithrombin III C;Keywords: cysteine proteinase inhibitor; glycoprotein F;65,93,171,376/Binding site: carbohydrate (Asn) (covalent) F;354/Inhibitory site: Ser (cathepsin L) #status predicted A; Molecule type: protein A; Residues: 11-21;231-237;240-256;303-325 <SUM2> C:Comment: This antigen probably acts as a proteinase inhibitor to modulate the host C;Genetics: submitted to the EMBL Data Library, January 1995 A; Reference number: G07968 A;Cross-references: EMBL:U19568; GB:U19558; NID:g1172085 A;Accession: I38200 A;Status: nucleic acid sequence not shown A;Molecule type: DNA A;Residues: 1-390 <SCH1> A; Gene: GDB:SCCA1; SCC A; Status: preliminary; translated from GB/EMBL/DDBJ A;Cross-references: EMBL:U19562; NID:g897835; PIDN:AAA86316.1; PID:g897844 A; Molecule type: DNA A; Residues: 1-117 <SCH2> A; Status: nucleic acid sequence not shown Query Match Best Local Similarity 38.4%; Score 752; DB 2; Pred. No. 1.3e-45; Length 390 #status predicted

739.5 7752.5 715.5 711. 662.5 664.5 668.5 668.5 668.5 669.6 649.6 649.6 630.5 622.5 590.5 570.5 570.5 570.5 570.5 570.5 570.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5 670.5

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A;Gene: GDB:SCCA2; PII1
A;Gene: GDB:SCCA2; PII1
A;Cross-references: GDB:6556; OMIM:600518
A;Map position: 18q21.3-18q21.3
A;Introns: 55/3; 74/3; 117/3; 157/1; 204/3; 256/3
C;Superfamily: antithrombin III
C;Keywords: glycoprotein; serine proteinase inhibitor
F;1-22/Domain: signal sequence #status predicted <SIG>
F;2-384/Product: leupin #status predicted <MAT>
F;55-384/Product: leupin #status predicted (AMT)
F;65,93,170,376/Binding site: carbohydrate (Asn) (covalent) #status predict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: proteinase inhibitor 11 (PII1); squamous cell carcinoma antige C;Species: Homo sapiens (man) C;Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #text_change 26-May-2000 C;Accession: I38202; 866675; S57522 R;Schneider, S.S.; Schick, C.; Fish, K.E.; Miller, E.; Pena, J.C.; Treter, S.D.; Proc. Natl. Acad. Sci. U.S.A. 92, 3147-3151, 1995 A;Title: A serine proteinase inhibitor locus at 18q21.3 contains a tandem duplica A;Reference number: I38200; MUID:95241462; PMID:7724531 A;Accession: I38202 A;Status: nucleic acid sequence not shown
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A; Residues: 7-351,'V',353-384 <BAR>
A; Cross-references: EMBL: X89015; NI
C; Genetics:
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FEBS Lett. 373, 61-65, 1995
A;Title: Identification of a novel human serpin gene; cloning sequencing A;Reference number: S66675; MUID:96013887; PMID:7589435
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A; Residues: 1-390 <SCH>
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1 MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
                                                                                           Similarity
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                                                                     Conservative
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                                                                                    37.9%;
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                                                                Score 743; DB 2;
Pred. No. 5.4e-45;
4; Mismatches 135
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N;Alternate names: plasminogen activator inhibitor-2 homolog
C;Specles: Equus caballus (domestic horse)
C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change
C;Accession: A44241; A37276; S34062
R;Dubin, A.; Travis, J.; Enghild, J.J.; Potempa, J.
J. Biol. Chem. 267, 6576-6583, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Equine leukocyte elastase inhibitor. Primary structure A;Reference number: A42421; MUID:92202200; PMID:1551869 A;Accession: A42421
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                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-379 < KOR>
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                                                                                                                                                                                                                                                                                                                                                                                      A; Title: Molecular cloning and expression of an intracellular serpin: an elastase A; Reference number: 834062; MUID:93319507; PMID:7687128
                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: protein
A; Residues: 1-41.'E'.43-325,'VD',326-379 *
R; Kordula, T; Dubin, A; Schooltink, H;
Biochem. J. 293, 187-193, 1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Dubin, A; Travis, J.; Enghild, J.J.; Potempa, J. submitted to the Protein Sequence Database, December 1991 A;Reference number: A37276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Experimental source: leukocyte
A; Note: sequence extracted from NCBI backbone (NCBIP:89849)
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Best Local :
                                                                                                                                                                                                                                                              Superfamily: antithrombin
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                                                                                                                                                                                                                                          serine
                                                                                                                                                                           Similarity
NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
                                                                MEQLSTANTHFAVDLFRALNESDPTGNIFISPLSISSALAMIFLGTRGNTAAQVSKALYF
                                                                                             MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TNEEFCCNHPFLFFIRQNKTNSILFYGRFSSP
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                                                                                                                                                                                                                                       proteinase
                                                                                                                                                                         37.7%;
38.0%;
                                                                                                                                                                                                                                          inhibitor
                                                                                                                                                     85;
                                                                                                                                                   Score 739.5; DB 2;
Pred. No. 9.2e-45;
5; Mismatches 137;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    <DUB2>
: Koj, A.; Heinrich, P.C.; Rose-John,
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| Oy 181 WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-GINMYV 239                                                                                                       | Qy 121 LYDAKVERVDFTNHLEDTRRNINKWYENETHGKIKNVIGEGGISSSAVMYLVNAVYFKGK 180       :     :       :   :   :   :   : | 61                                                                                                                          | QY 1 MASLAAANAEFCENLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV 60    ::     :       :     :: :     :::: :      Db 1 MEQLSSANTRFALDLFLALSENNPAGNIFISPFSISSAMANVFLGTRGNTAAQLSKTFHF 60  OV 61 NTASGYGNSSNSOSGIOGOLKRVFSDTNASHKDVDLSTVNGLFAFKVYGFHKDYTFCAFK 120 | Ouery Match 36.9%; Score 722.5; DB 2; Length 379; Best Local Similarity 38.6%; Pred. No. 1.5e-43; Matches 150; Conservative 74; Mismatches 146; Indels 19; Gaps 4; | hibitor                                                                     | :ELANH2; EI; PI2<br>erences: GDB:132914; OMIM:130135<br>fon: 6n25-6n24 3            | A;Accession: 565750 A;Status: preliminary A;Status: preliminary A;Molecule type: protein A;Rosidues: 57-69;97-110;111-129;204-213;216-244;255-271,'x',273-274;291-301 <pac></pac> | R;Packard, B.Z.; Lee, S.S.; Remold-O'Donnell, E.; Komoriya, A. Blochim. Blophys. Acta 1269, 41-50, 1995 A;Title: A serpin from human tumor cells with direct lymphoid immunomodulatory activity: A;Reference number: S65750; MUID:96049524; PMID:7578269 | A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-379 <rem> A;Cross-references: EMBL,M93056</rem>                                                          | R;Remold-O'Donnell, E.; Chin, J.; Alberts, M. Proc. Natl. Acad. Sci. U.S.A. 89, 5635-5639, 1992 A;Title: Sequence and molecular characterization of human monocyte/neutrophil elastase i A;Reference number: \$27383; MUID:92302296; PMID:1376927 A;Accession: \$27383 | S27383; selastase inhibitor - human elastase inhibitor - human C:Species: Homo sapiens (man) C:Species: Homo sapiens (man) C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 05-Sep-1997 C:Accession: S27383; S65750 | QY 354 LFRADHPELFVIRKDDIILFSGKVSCP 380                                                                                                  | Qy 294 LGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQST 353   :: ::  :::   :::                                                                                  | QY 240 LLPENDLSEIENKLTFONLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA 293 |     | 181 WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-GINMYV | QY 121 LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYEKGK 180  11: | Db 61 DTVEDIHSREQSLNADINKPGAPYILKLANRLYGEKTYNFLADFLASTQK 110      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----|------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------|
| OYCH OVALDUMÍN-related Y protein - chicken C;Species: Gallus gallus (chicken) C;Date: 17-Dec-1982 #sequence_revision 17-Dec-1982 #text_change 18-Jun-1999 C;Accession: A01244 | LT 6                                                                                                          | Oy 343 NIVEKQLPQSTLFRADHPFLFVIRKDDIILFSGKVSCP 380    ;      ;      ;    Db 352 GFTVTSAPGHENVHCNHPFLFFIRHNESNSILFFGRFSSP 391 | 283 KNYEMKQYLRALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGS<br>: :::    : :                  :      :   ::                                                                                                                                                | 22 <b>7</b><br>233                                                                                                                                                 | Qy 167 AVMVLVNAVYFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKI 226<br> | Qy 107 VYGFHKDYIECAEKLYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSS 166       :   : | Qy 61 NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEK 106   ::::     :     :     :     :                                                                                           | Qy 1 MASLAAANAEFCFNLFREMDDNOGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV 60                                                                                                                                                                                     | Query Match 96.5%; Score 715.5; DB 2; Length 391; Best Local Similarity 38.0%; Pred. No. 4.8e-43; Matches 152; Conservative 78; Mismatches 141; Indels 29; Gaps 7; | A;Map position: 18q21.3-18q22<br>C;Superfamily: antithrombin III<br>C;Keywords: serine proteinase inhibitor<br>F;355/Inhibitory site: Val (unidentified proteinase) #status predicted                                                                                  | A;Accession: UC/118<br>A;Status: preliminary<br>A;Molecule type: mRNA<br>A;Residues: 1-391 <spr><br/>A;Cross-references: GB:AF169949; NID:g5911368; PIDN:AAD55765.1; PID:g5911369<br/>C:Genetics:</spr>                            | hima, T.; Frederick, M.; Henderson, Y.; Clayman, G. es. Commun. 264, 299-304, 1999 tlon and cDNA cloning of headpin, a novel differenti | JC7118  Teacher 118  Academic Serine proteinase inhibitor - human C;Species: Homo sapiens (man) C;Date: 19-May-2000 #sequence revision 19-May-2000 #text change 26-May-2000 | 351 NF)                                                           | 354 |                                                                  | 231<br>294                                                                   | Oy 240 LLPENDLSEIENKLTFQNLMEWTNPRRWTSKYVEVFFPQFKIEKNYEMKQYLRA 293 |

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A; Molecule type: protein A; Residues: 1-378 <TES> A; Note: the sequence from C; Superfamily: antithrom
                                                                                                                                                                                  A;Title: Primary structure of a porcine leukocyte serpin. A;Reference number: S38962; MUID:94039085; PMID:7901009 A;Accession: S38962
                                                                                                                                                                                                                                            RESULT 7
$38962
serpin - pig
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997
C:Accession: $38962
C:Accession: $38962
R:Teschauer, W.F.; Mentele, R.; Sommerhoff, C.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Heilig, R.; Muraskowsky, R.; Kloepfer, C.; Mandel, Nucleic Acids Res. 10, 4363-4382, 1982
A;Title: The ovalbumin gene family: complete sequence A;Reference number: A01244; MUID:83014329; PMID:71222
A;Accession: A01244
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MEQLSAANTRF ALDLF RALNESNPAGNIFISPFSISSALAMILLGTRGNTEAQMSKALHF
                         MASLAAANAEFCENLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FKGIWKIAFNTEDTREMPFSMTKEESKPVQMMCMNNSFNVATLPAEKMKILELPYASGDL
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                                                         Conservative
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                                                                     35.7%;
                                                                                                                              6 is inconsistent with that from
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                                                         81;
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Pred. No. 9.8e-43;
                                                                     Score 699; DB 2;
Pred. No. 6.6e-42;
                                                         Mismatches
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                                                                                                               A; Molecule type: mRNA
A; Residues: 1-415 <WEB>
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                                     LFRADHPFLFVIRKD--DIILFSGKVSCP
                                                                                                      LGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQST
                                                                                                                                                            LLPDSIEDESTGLRKIEQHLTLEKLREWTKPDNLELLEVNVHLPRFRLEESYDLNAPLAR
                                                                                                                                                                                   LLPEN-----DLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA
                                                                                                                                                                                                                                                                                                                       TYGAELASVDELRASEEARKAINEWVKEQTEGKIPELLASGVVDSATKLVLVNAIYFKGS
                                                                                                                                                                                                                                                                                                                                                  LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK
                                                                               LGVQDLFG-SRADLTGMSEARDLFISKVVHKSFVEVNEEGTEAAAATXGIAVFAMLMPEE
                                                                                                                                                                                                                                            WQEKFMTEATKDAPFRLNKKDSKTVKMMYQKKKFPFGYIKELKCRVLELPYQGKDLSMVI
                                                                                                                                                                                                                                                                               WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-GINMYV
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DFIADHPFIFFIRHNPSSNILFLGRLSSP
                                                                                                                                                                                                                                                                                                                                                                                                      -KDIHSRFQSLNADINKCGASYILKLANRLFGEKTYHFLPEFLASTQK
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plasminogen activator inhibitor 2 precursor N; Alternate names: urokinase inhibitor

C;Species: Homo sapiens (man)
C;Date: 22-Nov-1989 #sequence\_revision 22-Nov-1989 #text\_change 20-Oct-2000
C;Accession: A33853; I54218; A31366; A46543; A29362; A26553; A53815; A25021;
R;Ye, R.D.; Ahern, S.M.; Le Beau, M.M.; Lebo, R.V.; Sadler, J.E.
J. Biol. Chem. 264, 5495-5502, 1989
A;Title: Structure of the gene for human plasminogen activator inhibitor-2. A;Reference number: A32853; MUID:89174589; PMID:2494165
A;Accession: A32853; S02435;

The

A; Molecule type: DNA A; Residues: 1-415 < YER>

R.Samia, J.A.; Alexander, S.J.; Horton, K.W.; Auron, P.E.; Genomics 6, 159-167, 1990
Genomics 6, Chromosomal organization and localization of the A; Reference number: I54218; MUID:90152678; PMID:2303256
A; Accession: I54218 A;Cross-references: GB:M24651; (R;Samia, J.A.; Alexander, S.J.; GB:M24652; GB:M24653; Horton, K.W.; Auron, GB:M24654; GB:M24655; GB: P.E.; Byers, M.G.; Shows, GB:M24656; lows, T.B.

A; Status: preliminary; translated from GB/EMBL/DDBJ

A; Molecule type: DNA A; Residues: 1-415 < RES>

A;Cross-references: GB:M31551; NID:g340152; PIDN:AAA36797.1; PID:g340154 R;Antalis, T.M.; Clark, M.A.; Barnes, T.; Lehrbach, P.R.; Devine, P.L.; Proc. Natl. Acad. Sci. U.S.A. 85, 985-989, 1988 A;Title: Cloning and expression of a CDNA coding for a human monocyte-de A;Reference number: A31366; MUID:88125032; PMID:3257578 human monocyte-derived plasmin Schevzov,

A; Molecule type: mRNA A; Residues: 1-415 <ANT>

A;Cross-references: GB:J03603; NID:g R;Webb, A.C.; Collins, K.L.; Snyder, J. Exp. Med. 166, 77-94, 1987 NID:g189546; nyder, S.E.; Alexander, PIDN:AAA60004.1; PID:g189547 Alexander, S.J.; Rosenwasser,

A; Title: Human monocyte Arg-serpin cDNA. Sequence, chromosomal A; Reference number: A46543; MUID:87252928; PMID:3496414 A; Accession: A46543 assignment,

> and . :.

Eddy, homolo

A;Cross-references: GB:X00630; NID:g35267; PIDN:CAA686 R;Schleuning, W.D.; Medcalf, R.L.; Hession, C.; Rother Mol. Cell. Biol. 7, 4564-4567, 1987
A;Title: Plasminogen activator inhibitor 2: regulation A;Reference number: A29362; MUID:88142852; PMID:332582 A;Accession: A29362
A;Residues: 1-119,'D',121-403,'K',405-412,'C',414-415 NID:g35267; PIDN:CAA68666.1; PI.L.; Hession, C.; Rothenbuehler, PID:g35268 er, R.; Shaw, Α.,

: regulation of PMID:3325828 gene transcription during

<SCH>

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A: Molecule type: protein
A: Residues: 377-415 <RIS>
R: Kruithof, E.K.; Cousin, E.
Biochem. Biophys. Res. Commun. 156, 383-388, 1988
A: Title: Plasminogen activator inhibitor 2. Isolation and A: Reference number: I52229; MUID: 89025873; PMID: 2845977
A: Accession: I52229
A: Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A:Molecule type: protein
A:Residues: 83-87 <JEN>
R:Kruithof, E.K.O.; Vassalli, J.D.; Schleuning,
J. Biol. Chem. 261, 11207-11213, 1986
A:Title: Purification and characterization of a
A:Reference number: A25021; MUID:86278222; PMID:
A:Accession: A25021
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R;Ye, R.D.; Wun, T.C.; Sadler, J.E.
J. Biol. Chem. 262, 3718-3725, 1987
A;Title: cDNA cloning and expression in Escherichia coli
A;Reference number: A26553; MUID:87137674; PMID:3029122
A;Accession: A26553
                                                                                                                                                                                                                                                                                                                                                                                                         F;1-22/Domain: signal sequence *status predicted <SIG>
F;23-415/Product: plasminogen activator inhibitor 2 *status predicted <MAT>
F;23/Modified site: acetylated amino end (Ser) (in mature form) *status predicted
F;75-115.339/Binding site: carbohydrate (Asn) (covalent) *status predicted
F;83,84,86/Cross-link: isopeptide (Gln) (interchain to Lys N6-amino of unidentified
F;380-381/Cleavage site: Arg-Thr (plasminogen activator) *status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Title: Determination of intermediates, products and cleavage A;Reference number: S02435; MUID:88167197; PMID:3280346 A;Accession: S02435
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A;Title: A unique interhelical insertion in plasminogen activator inhibitor-2 contains A;Reference number: A53815; MUID:94253109; PMID:7910824
A;Accession: A53815
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A;Map position: 18q21.2-18q22
A;Introns: 56/3; 96/3; 139/3; 179/1; 226/3; 281/3
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A; Residues: 347-376 <KRU>
R; Kiso, U.; Kaudewitz, H.; I
FEBS Lett. 230, 51-56, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA, A; Molecule type: mRNA, A; Residues: 1-119, 'D', 121-403, 'K', 405-412, 'C', 414-415 <YE2> A; Cross-references: GB: J02685; NID: g189544; PIDN: AAA36413.1; A; Experimental source: placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Superfamily: antithrombin III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Gene: GDB: PAI2; PLANH2
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A; Residues: 1-56 <RE2>
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                                                                                                                                                                                                                      IKNVIGEGGISSSAVMVLVNAVYFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERK
                                                                                  YDLSIVNGLFAEKVYGFHKDYIECAEKLYDAKVERVDFTNHLEDTRRNINKWVENETHGK
                                                           YLLESVNKLFGEKSASFREEYIRLCQKYYSSEPQAVDFLECAEEARKKINSWVKTQTKGK
                                                                                                                                          NEVGANAVTPMTPENFTSCGFMQQIQKGSYPDAILQAQAADKIHSSFRSLSSAINASTGN
                                                                                                                                                                                                                                                                                                                                                                                        site: Arg (plasminogen activator) #status experimental
                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                       33.9%; Score 664.5; DB 2;
34.7%; Pred. No. 2.1e-39;
htive 83; Mismatches 153;
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                                                                                                                                                                                  ---TASGY-----GN-----SSNSQSGLQSQLKRVFSDINASHKD
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N;Alternate names: cytoplasmic antiproteinase 2 (CAP-2)
C;Species: Homo sapiens (man)
C;Date: 02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change
C;Accession: A59273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Cross-references: GDB:599392; OMIM:601697
A;Map position: 18q21.3-18q21.3
C;Superfamily: antithrombin III
C;Keywords: proteinase inhibitor
F;339/Inhibitory site: Arg (unidentified proteinase) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R:Sprecher, C.A.; Morgenstern, K.A.; Mathewer, J. Biol. Chem. 270, 29854-29861, 1995.
A;Title: Molecular cloning, expression, and A;Reference number: A59273; MUID:96102039; EA;Accession: A59273
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A;Gene: GDB:PI8; CAP2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-374 <SPR>
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145; Conserv
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                                                                                                                                                                                                                        LLPEN--DLSEIENKLTFONLMEWINPRRMTSKYVEVFFFOFKIEKNVEMKQYLRALGLK 297
                                                                                                                                                                                                                                                                                                                                                                   FYQAELEELSFAEDTEECRKHINDWVAEKTEGKISEVLDAGTVDPLTKLVLVNAIYFKGK
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                                        FCADHPFLFFIRRHKTNCILFCGRFSSP
                                                                              FRADHPFLFVIR--KDDIILFSGKVSCP
                                                                                                                                              DIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATG---SNIVEKQLPQSTL
                                                                                                                                                                                                     LLPDDNTDLAVVEKALTYEKFKAWTNSEKLTKSKVQVFLPRLKLEESYDLEPFLRRLGMI
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                                                                                                                         DAFDEAKADFSGMSTEKNVPLSKVAHKCFVEVNEEGTEAAAATAVVRNSRCSRMEPR---
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CAP2

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A;Reference number: A90092; MUID:79186957; PMID:751624
A;Accession: A90092
A;Molecule type: protein
A;Residues: 6-17;30-36;61-79;116-124;367-374;380-386 <TH2>
R;Tsunasawa, S.; Narita, K.
J. Biochem. 92, 607-613, 1982
A;Title: Micro-identification of amino-terminal acetylamino acia;Reference number: A61297; MUID:83056735; PMID:6754709
A;Accession: A61297
A;Molecule type: protein
A;Residues: 2-6 <TSU>
R;Takahashi, N.; Hirose, M.
J. Biol. Chem. 267, 11565-11572, 1992
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C;Date: 31-Dec-1979 #sequence_revision 30-Jun-1993 #text_change 15-Sep-2000
C;Accession: A90455; I50605; A93197; A93827; A90093; A90092; A61297; A42
R;Woo, S.L.C.; Beattie, W.G.; Catterall, J.F.; Dugalczyk, A.; Staden, R.; Brownl
Biochemistry 20, 6437-6446, 1981
A;Title: Complete nucleotide sequence of the chicken chromosomal ovalbumin gene A;Reference number: A90455; MUID:82069038; PMID:6272839
A;Accession: A90455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Accessium: A;Accessium: A;Molecule type: protein
A;Molecule type: protein
A;Residues: 2-33,'X',35-36 <PAL>
A;Residues: 2-33,'X',35-36 <PAL>
R;Thompson, E.O.P.; Fisher, W.K.
R;Thompson, E.O.P.; Fisher, W.K.
Aust. J. Biol. Sci. 31, 443-446, 1978
A;Title: A correction and extension of the acetylated amino terminal sequence of ovalbum
A;Title: A correction and extension of the acetylated amino terminal sequence of ovalbum
A;Title: A correction and extension of the acetylated amino terminal sequence of ovalbum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Robertson, M.A.; Staden, R.; Tanaka, Y.; Catterall, J.F.; O'Malley, B.W nature 278, 370-372, 1979

A;Title: Sequence of three introns in the chick ovalbumin gene.

A;Reference number: I50605; MUID:79135070; PMID:423993

A;Accession: I50605

A;Accession: I50605

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Residues: 1-4,'A',6-118,'F',120-155 <ROB>
A;Residues: 1-4,'A',6-118,'F',120-155 <ROB>
A;Cross-references: EMBL:V00382; NID:g63051; PIDN:CAA23681.1; PID:g63052

R;MCReynolds, L.; O'Malley, B.W.; NISbet, A.D.; Fothergill, J.E.; Givol, Nature 273, 723-728, 1978

A;Title: Sequence of Chicken ovalbumin mRNA.

A;Reference number: A93197; MUID:7819942; PMID:661981
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: protein
A;Residues: 2-17 <TH1>
R;Thompson, E.O.P.; Fisher, W.K.
Aust. J. Biol. Sci. 31, 433-442, 1978
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Proc. Natl. Acad. Sci. U.S.A. 75, 94-98, 1978
A;Title: Ovalbumin: a secreted protein without a transient hydrophobic leader sequence.
A;Reference number: A93827; MUID:78116057; PMID:272676
A;Accession: A93827
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A; Residues: 1-386 <CAT>
A; Cross-references: GB;
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A;Note: a number of silent polymorphic sites are idd
A;Note: Thr-188 is also predicted
R;Catterall, J.F.; O'Malley, B.W.; Robertson, M.A.;
Nature 275, 510-513, 1978
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A; Residues: 1-386 <W
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A; Residues: 1-386 < MCI
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Staden, R.; Tanaka, Y.; Catterall, J.F.; O'Malley, B.
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ovalbumin - Japanese quail
(Species: Coturnix coturnix japonica (Japanese quail)
C;Species: Coturnix coturnix japonica (Japanese quail)
C;Date: 21-Nov-1993 #sequence\_revision 10-Nov-1995 #te:
C;Accession: S11433
R;Mucha, J.; Klaudinyova, V.; Hanes, J.;
R;Mucha, J.; Klaudiny, J.; Klaudinyova, V.; Hanes, J.;
Nucleic Acids Res. 18, 5553, 1990
A;Title: The sequence of Japanese quail ovalbumin cDNA
A;Reference number: S11433; MUID:91016850; PMID:221673-

Hanes, J.;

Simuth,

#text\_change 16-Jul-1999

A;Cross-references: C;Superfamily: antit A; Molecule type: mRNA A; Residues: 1-383 < MUC>

antithrombin

EMBL:X53964; thrombin III

NID:g62643;

PIDN:CAA37916.1;

PID: 962644

A; Reference number: A; Accession: S11433

A;Status: preliminary

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C;Superfamily: antithrombin III C;Keywords: acetylated amino end; glycoprotein; phosphoprotein F;2-384/Product: ovalbumin #status experimental <MAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Contents: annotation; X-ray crystallography, 1.95 angstroms, R;Stein, P.E.; Leslie, A.G.W.; Finch, J.T.; Carrell, R.W. J. Wol. Biol. 221, 941-959, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Stein, P.E.; Leslie, A.G.W submitted to the Brookhaven |
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A;Molecule type: protein
A;Residues: 60-73,'X'.75-85;112-119,'EX',122-123 <TAK>
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Best Local :
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                        LFRADHPFLFVIR--KDDIILFSGKVSCP
                                                                                            MGITDVF-SSSANLSGISSAESLKISQAVHAAHAEINEAGREVVGSAEAGVDAASVSEE-
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                                                                                                                                                                                                                                  MMYVLLPE - - NDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA
                                                                                                                                                                                                                                                                                FKGLWEKAFKDEDTQAMPFRVTEQESKPVQMMYQIGLFRVASMASEKMKILELPFASGTM
                                                                                                                                                                                                                                                                                                           FKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-NGGI
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-FRADHPELECIKHIATNAVLFEGRCVSP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 659; DB 1;
Pred. No. 4.6e-39;
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homol

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N;Alternate names: proteinase inhibitor C;Species: Homo saplens (man) C;Date: 01-Mar-1996 #sequence_revision 0 C;Accession: 139184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
139184
                                                                                                                                                                                                                                                                                                                                                                                                                          R;Riewald, M.; Schleef, R.R.
J. Biol. Chem. 270, 26754-26757, 1995
A;Title: Molecular cloning of bomapin (potease inhibitor A;Reference number: 139184; MUID:96070759; PMID:7592909
A;Accession: 139184
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A;Map position: 14932.1-14932.1
C:Superfamily: antithrombin III
C:Keywords: serine proteinse i
                                                                                                                                                                                                                                                                                                                               C;Genetics:
A;Gene: GDB:PIl0
                                                                                                                                                                                                                                                                                                                                                                          A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-397 <RES>
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Matches 137
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137; Conserv
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                                                                                           NTASGYG-----NSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKV 107
                                                                                                                                                        MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTE--ATAATGSNIVEKQLPQ 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DKLPGFGDSIEAQCGTSVNVHSSLRDILNQITKQNDAYSFSLASRLYAQETYTVVPEYLQ
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                               YGFHKDYIECAEKLYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSA 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STLFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMLVLLPDDVSGLEQLESIISFEKLTEWTSSSIMEERKVKVYLPRMKMEEKYNLTSLLMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NMYVLLPE--NDLSEIENKLTFQNLMEWTNPRRWTSKYVEVFFPQFKIEKNYEMKQYLRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-NGGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NTASGYGNSSNSQSG----LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIE 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MDSLATSINQFALELSKKLAESAQGKNIFFSSWSISTSLTIVYLGAKGTTAAQMAQVLQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FKGLWEKAFKAEDTOTIPFRVTEQESKPVQMMYQIGSFKVASMASEKMKILELPFASGTM
             YAFHNKYLEDMKTYFGAEPQPVNFVEASDQIRKDINSWVERQTEGKIQNLLPDDSVDSTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGITDLF-SSSANLSGISSVGSLKISQAVHAAHAEINEAGRDVVGSAEAGVDATEE----
                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                   33.6%; Score 658.5; DB 2; 34.9%; Pred. No. 5.1e-39;
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                                                                                                                                                                                                      89; Mismatches
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Pred. No. 4.9e-39;
96; Mismatches 139;
                                                                                                                                                                                                                                                                                                                                                             NID:g1065408; PIDN:AAC50282.1; PID:g1065409
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C;Species: Mus musculus (house mouse)
C;Date: 08-Dec-1995 #sequence_revision
C;Accession: A57488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Map position: 13
C; Superfamily: antithrombin III
C; Kupwords: serine proteinase inhibitor
C; Keywords: serine proteinase inhibitor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Sun, J.; Rose, J. Biol. Chem. 2
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RESULT 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-378 <SUN>
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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                                                                                                                           DIFDESKADLSGIASGGRLYISRMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRA
                                                                                                                                                                       MLPDEHVELSTVEKEVTYEKFIEWTRLDKMDEEEVEVFLPKFKLEENYNMNDALYKLGMT
                                                                                                                                                                                      LLPEN--DLSEIENKLTFQNLMEWINPRRMTSKYVEVFFPQFKIEKNYEMKQYLRALGLK 297
                                                                                                                                                                                                                                                 WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-NGGINMYV
                                                                                                                                                                                                                                                                                                                                                                                                                           MDPLQEANGTFALNLLKILGEDSSK-NVFLSPMSISSALAMVFMGAKGTTASQMAQALAL
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                                                                        DHPFLFVIR--KDDIILFSGKVSCP 380
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                                                                                                                                                                                                                                                                                                FYEAELEELDFQGATEESRQHINTWVAKKTEDKIKEVLSPGTVNSDTSLVLVNAIYFKGN
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                                                                                                       DAFG-GRADFSGMSSKQGLFLSKVVHKAFVEVNEEGTEAAAATAGMMTVRCMRFTPRFCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J.B.; Bird,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 649; DB 2;
Pred. No. 2.2e-38;
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353 357 294 234 239 174

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A48681
placental thrombin inhibitor - human
N;Alternate names: cytoplasmic antiproteinase; intracellular serine proteinase in
C;Species: Homo sapiens (man)
C;Date: 07-Apr-1994 #sequence_revision 07-Jul-1995 #text_change 18-Jun-1999
C;Accession: A48681; A54352; A46672; B46672; C46672; C35750
R;Coughlin, P; Sun, J; Cerruti, L; Salem, H-H; Bird, P.
Proc. Natl. Acad. Sci. U.S.A. 90, 9417-9421, 1993
A;Title: Cloning and molecular characterization of a human intracellular serine
A;Reference number: A48681; MUID:94022386; PMID:8415716
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C; Superfamily: antithrombin III
C; Keywords: blocked amino end; c
E; 341/Inhibitory site: Arg (thro
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A;Title: Identification and purification of a novel serine proteinase inhibitor.
A;Reference number: A46672; MUID:93252826; PMID:8486644
A;Accession: A46672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA A; Molecule type: mRNA A; Residues: 1-174, 'E', 176-361, 'S', 363-376 < MOR> A; Residues: 1-174, 'E', 176-361, 'S', 363-376 < MOR> A; Cross-references: GB:S69272; NID:g546087; PIDN:AAB30320.1; A; Experimental source: placenta A; Note: sequence extracted from NCBI backbone (NCBIN:145231, R; Coughlin, P.B.; Tetaz, T.; Salem, H.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Experimental source: placenta A;Note: authors translated the codon CAA for residue 198 as Gly A;Note: authors translated the codon CAA for residue 198 as Gly R;Morgenstern, K.A.; Sprecher, C.; Holth, L.; Foster, D.; Grant, F.J.; Chir Biochemistry 33, 3432-3441, 1994
A;Title: Complementary DNA cloning and kinetic characterization of a novel A;Reference number: A54352; MUID:94183847; PMID:8136380
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A;Residues: 47-60;63-01;91-98 <CO2>
A;Residues: 47-60;63-01;91-98 <CO2>
A;Experimental source: placenta, leukemic cell line K562
A;Note: sequence modified after extraction from NCBI backbone
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A;Cross-references: GDB:252025; OMIM:173321
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                                                                     TDAFELGKADFSGM-SQTDLSLSKVVHKSFVEVNEEGTEAAAATAAIMMMRCARFVPRFC
                                                                                                                                                                          IMLPDETTDLRTVEKELTYEKFVEWTRLDMMDEEEVEVSLPRFKLEESYDMESVLRNLGM
                                                                                                                                                                                                                                                                          NWDGQFDKENTEERLFKVSKNEEKPVQMMFKQSTFKKTYIGEIFTQILVLPYVGKELNMI
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ADHPFLFVI--RKDDIILFSGKVSCP
                                                                                                                       KDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFR
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Arg (thrombin) #status predicted
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Pred. No. 2.6e-38;
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Search completed: July 11, Job time: 77.732 secs

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plasminogen activator inhibitor 2 - mou
c;Species: Mus musculus (house mouse)
c;Date: 07-Apr-1994 *sequence_revision
C;Accession: $20047; $09616
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    submitted to the EMBL Data Library, A; Reference number: S20047
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A; Residues: 1-27 <BEL2>
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                                    FHQASVDVTEEGTVAAGGTGAVMTGRTGHGGPQFVADHPFLFFI-MDKITHTILFVGRFS
                                                                                                                    IPNLLPEGSVDEDTKMVLVNAVYFKGKWKTPFEKKLNGLYPFRVNSHESIP-----VQM
                                                                                                                                                                                                                                                                 IKNVIGEGGISSSAVMVLVNAVYFKGKWQSAFTKSET-----INCHFKSPKCSGKAVAM
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                                                                                                   ISKDTLDEDDVVVYIPKFKLAQSYELKSILQSMGMEDAFNKGKANFSGMSERNDLFLSEV
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Pred. No. 5.2
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5.2e-37;
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Maximum DB seq
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## ALIGNMENTS

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| EMBL; D88575; BAA31232.1; EMBL; AF027866; AAC64506.1; HSSP; P05619; 1HLE. Genew; HGNC:13902; SERPINB7. MIM; 60357; InterPro; IPR000215; Serpin. Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1. PROSITE; PS00284; SERPIN; 1. | This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch). | TISSUE-Mesangial cells; MEDLINE-98376492; PubMed-9710452; Miyata T., Nangaku M., Suzuki D., Inagi R., Uragami K., Sakai H., Okubo K., Kurokawa K.; Okubo K., Kurokawa K.; 19A mesangium-predominant gene, megsin, is a new serpin upregulated in 19A nephropathy."; 1-1- FUNCTION: Might function as an inhibitor of Lys-specific proteases. Might influence the maturation of megakaryocytes via its action as a serpin. 1- SUBCELLULAR LOCATION: Cytoplasmic (By similarity). 1- TISSUE SPECIFICITY; Predominantly expressed in mesangial cells. 1- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY. | SEQUENCE FROM N.A.  MEDLINE-97326116; PubMed-9182567;  MEDLINE-97326116; PubMed-9182567;  Tsujimoto M., Tsuruoka N., Ishida N., Kurihara T., Iwasa F.,  Tsujimoto K., Rogi T., Kodama S., Katsuragi N., Adachi M.,  Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M.,  Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K.,  Nakanishi T., Nakazato H., Teramura M., Mizoguchi H., Yamaguchi N.;  "Purification, CDNA cloning, and characterization of a new serpin with  megakaryocyte maturation activity.";  J. Biol. Chem. 272:15373-15380(1997).  [2] | ID SPB/_HUMAN STANDARD; PRT; 380 AA.  ID SUBT_HUMAN STANDARD; PRT; 380 AA.  AC 075635;  AC 075635;  DT 15-JUN-2002 (Rel. 41, Created)  DT 15-JUN-2002 (Rel. 41, Last sequence update)  DT 15-JUN-2002 (Rel. 41, Last annotation update)  DE Megsin (TP55) (Serpin B7).  GN SERPINB7.  OS Homo sapiens (Human).  OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  OC Manmalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.  OX NCBI_TaxID=9606;  RN [1] |

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                                                                                                                                                                                          Silverman G.A., Cataltepe S.;
"SERPINB11 is a novel ov-serpin with at least 3 alleles.";
Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.

-- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
-- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
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Q96P15; Q96P14; Q96P13;
15-JUN-2002 (Rel. 41, Cast sequence up
15-JUN-2002 (Rel. 41, Last annotation
InterPro; IPR000215;
Pfam; PF00079; serpin
PROSITE; PS00284; SER
                                    EMBL; AF419953; AAL16056.1; --
EMBL; AF419954; AAL16057.1; --
EMBL; AF419955; AAL16058 1; --
Genew; HGNC:14221; SERPINB11.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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RESULT 3
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RY MEDLINE-21623618; PubMed-11604408;

RA Askew Y.S., Pak S.C., Luke C.J., Askew D.J., Cataltepe S., Mills I RA Kato H., Lehoczky J., Dewar K., Birren B., Silverman G.A.;

RA Kato H., Lehoczky J., Dewar K., Birren B., Silverman G.A.;

RY "SERPINB12 is a novel member of the human ov-serpin family that i widely expressed and inhibits trypsin-like serine proteinases.";

RI J. Biol. Chem. 276:49320-49330(2001).

CC -!- FUNCTION: Inhibits trypsin and plasmin, but not thrombin, coagulation factor Xa, or urokinase-type plasminogen activate coagulation factor Xa, or urokinase-type plasminogen activate (CC -: SUBCELLULAR LOCATION: Cytoplasmic (By similarity).

CC -: TISSUE SPECIFICITY: Expressed in many tissues, including bra harms a marrow, lymph node, heart, lung, liver, pancreas, testi
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            This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EN
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Mammalia; Eutheria; Primates;
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the European
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IIYFKGQRQNKFQVRETVKSPFQLSEGKNVTVEMMYQIGTFKLAFVKEPQMQVLELPYVN
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(Rel. 41,
(Rel. 41,
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Bioinformatics 1
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37 358
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Last annotation updat
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REACTIVE
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/FTId=VAR_012472.
I -> T (IN ALLELE B AND ALLELE C)
/FTId=VAR_012473.
W; 906F6FFFT-12-13
                                                    THE SERPIN FAMILY.
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Pred. No. 4.1e-50;
                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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Best Local S
Matches 159
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-95241402; PubMed-7724531;
Schneider S.S., Schick C., Fish K.E.,
Treter S.D., Hui S.M., Silverman G.A.
Treter S.D., Hui S.M., Silverman G.A.
                                                                                                                                                                                                                              SCC1_HUMAN STANDARD; PRT; 390 AA.
P29508; 096J21;
01-APR-1993 (Rel. 25, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Squamous cell carcinoma antigen 1 (SCCA-1) (Protein SERPINB3 OR SCCA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Serpin; S
ACT_SITE
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AF411191; AAL05571.1; -Genew; HGNC:14220; SERPINB12. InterPro; IPR000215; Serpin.
                                                                                                 SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
MEDLINE-92088241; PubMed-1958219;
Suminami Y., Kishi F., Sekiguchi K., Kato
"Squamous cell carcinoma antigen is a new
protease inhibitors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00079; serpin; 1.
PROSITE; PS00284; SERPIN; 1.
                                                                                                                                                                                           Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                        338
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Pred. No. 3.2e-46;
37; Mismatches 134;
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; FFE12D4C9B7F3DFA CRC64;
                                                                                                                                                                                           Craniata; Vertebrata; Catarrhini; Hominidae
                                                                                      181:51-58(1991)
                                                                                                                Kato
a new
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                                    Miller E.,
            18q21.3
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member
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Best Local S
Matches 165
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ACT_SITE
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.

-- FUNCTION: MAY ACT AS A PROTEASE INHIBITOR TO MODULATE THE HOST IMMUNE RESPONSE AGAINST TUMOR CELLS.

-- IMMUNE RESPONSE AGAINST TUMOR CELLS.

-- TISSUE SPECIFICITY: SQUAMOUS CELLS.

-- TISSUE SPECIFICITY: SQUAMOUS CELLS.

-- DEVELOPMENTAL STAGE: ITS EXPRESSION IS CLOSELY RELATED TO CELL DIFFERENTIATION IN BOTH NORMAL AND MALIGNANT SQUAMOUS CELLS.

-- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There use by non-profit institutions as long as modified and this statement is not removed...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; JT0966; JT0966.
HSSP; P01008; lATH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           duplication
                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR000215; Serpin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LL; S66896; AAB20405.1; -.
LL; U19566; AAA97552.1; -.
LL; U19566; AAA6317.1; -.
LL; U19560; AAA66317.1; JOINED.
LL; U19562; AAA66317.1; JOINED.
LL; U19562; AAA66317.1; JOINED.
LL; U19567; AAA66317.1; JOINED.
LL; U19567; AAA66317.1; JOINED.
LL; U19567; AAA66317.1; JOINED.
LL; U19569; AAA66316.1; -.
LL; U19569; AAA66316.1; JOINED.
LL; U19569; AAA66316.1; JOINED.
LL; U19560; AAA66316.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                      ; PF00079; serpin; 1.
T; SM00093; SERPIN; 1.
ITE; PS00284; SERPIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EN
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                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                     1 MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
                                                                                                                                                                                                                                                                                                                                                 Serine protease inhibitor.
E 354 355 REACT
E 357 357 T ->
E 390 AA; 44564 MW; ESE
                                                                                                                                                                                                                                                                                                           Similarity
                                                  GINMYVLLPE--NDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYL
                                                                                                   VYFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-:||||:|: || |:|: || |:|: || |:|: || |
                                                                                                                                                                                         MNSLSEANTKEMEDLEQQERKSKEN-NIEYSPISITSALGMVLLGAKDNTAQQIKKVLHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FROM
            RALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAAT---
                                                                                                                                                      DLSMIVLLPNEIDGLQKLEEKLTAEKLMEWTSLQNMRETRVDLHLPRFKVEESYDLKDTL
                                                                                      TYFKGQWEKKFNKEDTKEEKFWPNKNTYKSIQMMRQYTSFHFASLEDVQAKVLEIPYKGK
                                                                                                                                          LDAIKKFYQTSVESVDFANAPEESRKKINSWVESQTNEKIKNLIPEGNIGSNTTLVLVNA
                                                                                                                                                                                                                                                                                                                                                354
357
390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of the human squamous cell carcinoma antigen Acad. Sci. U.S.A. 92:3147-3151(1995).
                                                                                                                                                                                                                                                                                               38.4%;
llarity 41.5%;
Conservative 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N.A.
                                                                                                                                                                                                                                                                                                81;
                                                                                                                                                                                                                                                                                               Score 752; DB
Pred. No. 1.9e-
31; Mismatches
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T -> A (I
                                                                                                                                                                                                                                                                                                                                                   EACTIVE BOND.
-> A (IN REF. 1).
E5F27F986C752CFA CRC64;
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                                                                                                                                                                                                                                                                                                          DB 1;
.9e-45;
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14;

Gaps

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SEQUENCE FROM N.A.
MEDLINE-95241462; PubMed=7724531;
Schneider S.S., Schick C., Fish K.E., Miller E., Pena J.C.
Schneider S.D., Hui S.M., Silverman G.A.;
Treter S.D., Hui S.M., Silverman G.A.;
A serine proteinase inhibitor locus at 18q21.3 contains duplication of the human squamous cell carcinoma antigen watl. Acad. Sci. U.S.A. 92:3147-3151(1995).
                                                                                                                                                                                                                                                                                                                                                                                     Strausberg R.;

Strausberg R.;

Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: MAY ACT AS A PROTEASE INHIBITOR TO MODULATE THE HOST IMMUNE RESPONSE AGAINST TUMOR CELLS.

-I- SUBCELLULAR LOCATION: CYtoplasmic.
-I- SUBCELLULAR LOCATION: CYtoplasmic.
-I- TISSUE SPECIFICITY: SQUAMOUS CELLS.
-I- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1996
01-OCT-1996
15-JUN-2002
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                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a cobetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entitles requires a license agreement (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Molecular cloning of human squamous cell carcinoma characterization of its promoter."; Biochim. Biophys. Acta 1518:124-131(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=21167379; PubMed=11267667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    **Barnes R.C., Worrall D.M.;

**Identification of a novel human expression of leupin.*;

FEBS Lett. 373:61-65(1995).
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Mammalia; Eutheria;
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SERPINB4 OR SCCA2.
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G; U19571; AAA92602.1; JOINED.
G; U19572; AAA92602.1; JOINED.
G; U19574; AAA92602.1; JOINED.
G; U19574; AAA92602.1; JOINED.
G; U19575; AAA92602.1; JOINED.
G; X89015; CAA61420.1; -...
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Metazoa; Chordata; C
Metazoa; Primates; C
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(Rel. 41, Last annotation
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carcinoma antigen 2 (SCCA-2) (Leupin).
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Catarrhini; Hominidae;
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DE Leukoc
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                      P05619;
01-NOV-1988 (Rel. 09, Created)
01-FEB-1994 (Rel. 28, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Leukocyte elastase inhibitor (LEI).
SERPINBI OR ELANH2.
                                                                                                                                                                                                                                                                                                                                                                   Equus caballus (Horse)
Eukaryota; Metazoa; Ch
Mammalia; Eutheria; Pe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Serpin; Serine protease inhibitor. ACT_SITE 354 355 REACT
                                                                                                                                                                                             "Molecular cloning and expression of an elastase inhibitor from horse leucocytes Biochem. J. 293:187-193(1993).
                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9796;
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SEQUENCE OF 343-362.
MEDLINE-88213423; PubMed-3366785;
MEDLINE-88213423; PubMed-3366785;
Potempa J., Dubin A., Watorek W., Travis J.;
Section 1. Sequence of the reactive center.
J. Biol. Chem. 263:7364-7369(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-RAY CRYSTALLOGRAPHY (1.95 ANGSTROMS).

X-RAY CRYSTALLOGRAPHY (1.95 ANGSTROMS).

MEDLINE-92389327; PubMed-1518052;

Baumann U., Bode W., Huber R., Travis J., Potempa J.;

Baumann U., Bode W., Huber R., Travis J., Potempa J.;

"Crystal structure of cleaved equine leucocyte elastase inhibitor determined at 1.95-A resolution.";

J. Mol. B1ol. 226:1207-1218(1992).

I- FUNCTION: THIS INHIBITOR IS THOUGHT TO BE INVOLVED IN THE CONTION INTRACELLULAR PROTEIN TURNOVER. BINDS TO THYMOSIN BETA-4.

I- SUBCELLULAR LOCATION: Cytoplasmic.

I- SUBCELLULAR LOCATION: Cytoplasmic.
                                                                                                                                            Serpin; Serpin; SWOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
  TURN
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InterPro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                  BL; M91161; AAA97513.1;

R; A28060; A28060.

R; A37276; A37276.

R; A42421; A42421.

R; S34062; S34062.
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  ; serpin; 1.
3; SERPIN; 1.
                                                                                                                                                                                                                                                                                                         protease inhibitor; 3D-structure.

1 BLOCKED (WITH AN UNKNOWN
345 REACTIVE BOND.
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  CHEMICAL GROUP).
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Best Local :
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                          Remold-O'Donnell E., Chin J., Alberts M.;
"Sequence and molecular characterization of human elastase inhibitor.";
Proc. Natl. Acad. Sci. U.S.A po [2]
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STRAND
SEQUENCE
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01-APR-1993 (Rel. 25, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Leukocyte elastase inhibitor (LEI) (Monocyte/neutrophil elastase inhibitor) (M/NEI) (EI).
SERPINB1 OR ELANH2 OR PI2.
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SEQUENCE FROM N.A.
MEDLINE-98296265; PubMed-9630619;
Zeng W., Silverman G.A., Remold-O'Donnell E.;
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Mammalia; Eutheria;
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                                                                                                      NCBI_TaxID=9606;
                                                                                                                                  Homo sapiens (Human)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MASLAAANAEFCFNLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
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                                                                                                                                                                                                                                                                                                LGVQDLFNRGKADLSGMSGARDLFVSKIIHKSFVDLNEEGTEAAAATAGTIMLAMLMPEE
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Primates;
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Pred. No. 1.4e-44;
                                                                                                                Craniata; Vertebrata; |
Catarrhini; Hominidae;
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EMBL; AF053630; AAC31394.1; -.

EMBL; BC009015; AAH09015.1; -.

PIR; S27383; S27383.

HSSP; P05619; 1HLE.

AARThus/Ghent_2DPAGE; 4314; IEF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein database of normal human Electrophoresis 13:960-969(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                     Serpin; Serine protease inhibitor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Structure and sequence of human M/NEI (monocyte/neutrophil elastase inhibitor), an Ov-serpin family gene."; Gene 213:179-187(1998).
                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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SUBCELLULAR LOCATION: Cytoplasmic (By similarity).
SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY
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                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                           LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK
LLPEN---
                                                                                                                  WKDKFMKEATTNAPFRLNKKDRKTVKMYQKKKFAYGYIEDLKCRVLELPYQGEELSMYI
                                                                                                                                              WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-GINMYV
                                                                                                                                                                           TYGADLASVDFQHASEDARKTINQWVKGQTEGKIPELLASGMVDNMTKLVLVNAIYFKGN
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                                                                                                                                                                                                                                                                                           MEQLSSANTRFALDLFLALSENNPAGNIFISPFSISSAMAMVFLGTRGNTAAQLSKTFHF
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                                                          LLPDDIEDESTGLKKIEEQLTLEKLHEWTKPENLDFIEVNVSLPRFKLEESYTLNSDLAR
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                                                                                     -DLSEIENKLTFONLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA
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                                                                                                                                                                                                                                                                                                                                                 Score 722.5; |
Pred. No. 2.1e
74; Mismatches
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RESULT 8
SB13_HUMAN
                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Hurpin (HaCaT UV-repressible serpin) (Protease (Headpin) (Serpin B13).
SERPINB13 OR PI13.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebr Mammalia; Eutheria; Primates; Catarrhini; Homin
                                                                                                                                                                                                                                                                                                                                                splicing of the human serine protease which is up-regulated in psoriasis.", DNA cell Biol. 20:123-131(2001).
-1- FUNCTION: May play a role in the pof keratinocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Genomic cloning, mapping, structure and promoter a serpin which is down-regulated in head and neck Biochim. Biophys. Acta 1492:441-446(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=20461850; PubMed=11004515;
Nakashima T., Pak S.C., Silverman Clayman G.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Spring P., Nakashima T., Frederick M., Henderson "Identification and cDNA cloning of headpin, a ne expressed serpin that maps to chromosome 18q.";
                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Abts H.F., Welss T.,
Bird P.I., Ruzicka T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-Placenta; MEDLINE-21213570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          expressed serpin that maps to chromosome 18q."; Biochem. Biophys. Res. Commun. 264:299-304(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Mol. Biol. [2]
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16-OCT-2001 (Re
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"Sequence, organization, chromosomal localization and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=99458661; PubMed=10527881;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Cloning and characterization of hurpin (Protease skin specific, UV-repressible serine proteinase ir ovalbumin serpin family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Abts H.F., Welss
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                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: Cytoplasmic.
ALTERNATIVE PRODUCTS: 2 isoforms; 1 (shown here) and produced by alternative splicing.
TISSUE SPECIFICITY: SKIN-SPECIFIC.
SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      351
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AJ001696; CAA04935
AJ001697; CAA04936
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iol. 293:29-39(1999).
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Heilig R., Muraskowsky
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AF169949;
                                            gallus (Chicken).
ota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
muria: Aves; Neognathae; Galliformes; Phasianidae; Phasiani
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SM00093; SERPIN; 1.
E; PS00284; SERPIN; 1.
                                                                                        protein
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owsky R., Kloepfer C.,
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30-MAY-2000 (Rel. 39,
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Bos taurus (Bovine).
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Nucleic Acids Res. 10:43
-!- SIMILARITY: BELONGS
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P01012;
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e inhibitor B-43.
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LONGS TO THE SERPIN FAMILY. OV-SERPIN
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pec

Pecora;

Bovoidea;

Euteleostomi;

Bovinae;

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HSSP;
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Nakaya N., Nishibori M., Kawabata M., Saeki K.;
"Cloning of a serine proteinase inhibitor from
expression in the brain and characterization of
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Serpin; Serine protease inhibitor
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3; Mismatches
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PAI2\_HUMAN 9 P05120; Q96E96; 13-AUG-1987 (Rel 01-FEB-1996 (Rel 15-JUN-2002 (Rel

STANDARD;

PRT;

415

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Plasminogen plasminogen

(Rel. 05, Created)
(Rel. 33, Last sequence update)
(Rel. 41, Last annotation update)
activator inhibitor 2 precursor (
activator inhibitor) (Monocyte Ar

(Monocyte Arg-serpin)

(PAI-2) (Placental

(Urokinase

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SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1
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"Primary structure of a porcine leukocyte serpin.";
Eur. J. Blochem. 217:519-526(1993).
-i- FUNCTION: REGULATES THE ACTIVITY OF THE NEUTROPHIL PROTELASTASE, CATHERSIN G AND PROTEINASE-3 (By similarity).
-i- SUBCELLULAR LOCATION: Cytoplasmic.
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MEDLINE=94039085; PubMed=7901009;
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Mammalia; Eutheria;
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InterPro; IPR000215; Serpin.
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378 AA;
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42512 MW;
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37.5%;
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REACTIVE BOND (BY SIMILARITY).
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Pred. No. 1.5e-41;
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TISSUE=Monocytes;

MEDLINE=87252928; PubMed=3496414;

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ROSenwasser L.J., Eddy R.L., Shows T.B., Auron P.E.;

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SERPINB2 OF
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Antalis T.M., Clark M.A., Barnes T., Lehrbach P.R., De Schevzov G., Goss N.H., Stephens R.W., Tolstoshev P.; "Cloning and expression of a cDNA coding for a human r plasminogen activator inhibitor.";
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MEDLINE-87137674; PubMed-3029122;
Ye R.D., Wun T.-Z., Sadler J.E.;
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Harrop S.J., Jankova L., Coles M., Jar
                                                                                                                                                                      SEQUENCE OF 12-17; 103-108 AND 314-321 MEDLINE-93162043; PubMed-1286667;
                                                                                                                                                                                                                                                                                                                        "Chromosomal organization and local
inhibitor gene: perfect structural
Genomics 6:159-167(1990).
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MEDLINE-88125032;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-88142852; PubMed-3325828; Schleuning W.-D., Medcalf R.L., H Shaw A., Kruithof E.K.O.;
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Mammalia; Eutheria;
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MEDLINE-90152678; PubMed-2303256;
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T.B. Jr., Webb A.C.;
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the European Bioinformatics Institute. There are no restrictions
use by non-profit institutions as long as its content is in
modified and this statement is not removed. Usage by and for con-
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                                     CONFLICT
SEQUENCE
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CARBOHYD
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Y00630; CAA68666.1;
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01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Cytoplasmic antiproteinase 2 (CAP2) (CAP-2) (Protease inhibitor (Serpin B8).
SERPINB8 OR PI8.
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-!- SUBCELUTIAR LOCATION: Cytoplasmic .
-!- SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
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MEDLINE-96102039; PubMed-8530382;
Sprecher C.A., Morgenstern K.A., Mathewes S.,
Schrader S.K., Foster D.C., Kisiel W.;
"Molecular cloning, expression, and partial chapter in the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the contro
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P48595;
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"Molecular cloning of bomapin (protease inhibitor 10), a nov serpin that is expressed specifically in the bone marrow.";

J. Biol. Chem. 270:26754-26757(1995).

-!- FUNCTION: MAY PLAY A ROLE IN THE REGULATION OF PROTEASE ACTIVITIES DURING HEMATOPOLESIS.

-!- SUBCELLULAR LOCATION: Cytoplasmic (By similarity).

-!- TISSUE SPECIFICITY: EXPRESSED SPECIFICALLY IN THE BONE MORE OF THE STRILLARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBE
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01-FEB-1996 (Rel. 33, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                  use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a coefficient the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict
                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human).
Eukaryota; Metazoa; (
Mammalia; Eutheria; F
                                        EMBL; U35459;
HSSP; P05619;
                                                                                                                                                                                                                                                                                                                               TISSUE-Bone marrow;
MEDLINE-96070759; P
                                                                                                                                                                                                                                                                                                                                                                                                                                             Bomapin (Protease inhibitor 10) SERPINB10 OR PI10.
             Genew; HGNC:8942; MIM; 602058; -.
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                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID-9606;
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Primates;
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Catarrhini;
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SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
Serpin; Serine protease inhibitor.
ACT_SITE 362 363 REACTING SEQUENCE 397 AA; 45402 MM. POTEN
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE-82069038; PubMed-6272839;
WOO S.L.C., Beattle W.G., Catterall J.E
Brownlee G.G., O'Malley B.W.;

"Complete nucleotide sequence of the ch
gene and its biological significance.";
Biochemistry 20:6437-6446(1981).
                                                                                                         MEDLINE-78199842; PubMed-661981; MCREYNOLIS L., O'MAILEY B.W., NISbet Fields S., Robertson M., Brownlee G.G "Sequence of Chicken ovalbumin mRNA." Nature 273:723-728(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OVAL_CHICK STANDARD; PRT; 3
P01012;
P01012;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Ovalbumin (Plakalbumin (Allergen Gal
Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHICK
SEQUENCE FROM N.A.

MEDLINE-79010682; PubMed-692731;

Catterall J.F., O'Malley B.W., R

Tanaka Y., Brownlee G.G.;
                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota;
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a; Aves; Neognathae; Galliformes; Phasianidae; Phasiani
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J00895; V00438; V00383; V00383; M34352; M34346; M34347; M34348;

AAB59956.1; CAA23716.1; CAA23682.1; AAA48998.1; AAA48998.1; AAA48998.1; AAA48998.1;

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MEDLINE-90370102; PubMed-2395463;
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# SUMMARIES

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| homo   | Q9dle7 mus musculu | 073860 meleagris g |        | Q8vhq0 mus musculu | O08804 mus musculu | Q9d1q5 mus musculu | Q9byf7 homo sapien | Q9d7s8 mus musculu |        | Q9d154 mus musculu | w      | Q9cqv3 mus musculu | Q91z12 mus musculu | Q920j5 rattus norv | Q9d695 mus musculu | Description      |

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| Q9nh65 trichinella |        | Q9d7d2 mus musculu | 017365 caenorhabdi | Q03734 mus musculu | Q9unu9 homo sapien | Q9dhg4 yaba-like d | Q8wqx0 rhipicephal | exodes rici |        |        |        | Q9wtt1 cavia porce | · Q9d6a7 mus musculu | Q13815 homo sapien | Q91422 gallus gall |        | Q8tnn7 methanosarc |        | -      | 0 xen  | Q9daz7 mus musculu | Q8uvs2 struthio ca | mus        | Q9d0s8 mus musculu | 008806 mus musculu | O08800 mus musculu | Q9dav6 mus musculu | 008797 mus musculu |

# ALIGNMENTS

| RP<br>RP           | RL | RT                                                               | RA | RA                                                       | RA                                                      | RA                                                                  | RA                                                  | RA                                                                | RA                                                                  | RA                                                              | RA                                                               | RA                                                               | RA                                                           | RA                                                                    | RA                                                             | RA       | RA                                                   | RA                          | RA                                                    | RA                                                                 | RX                                 | RC                            | RP                 | RN  | õ                 | გ                      | 8                                                                 | SO                    | GN                         | DE                              | DŦ                   | DŢ              | ΡŢ                                   | AC  | IJ                               | RESULT<br>Q9D695 |
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| SEQUENCE FROM N.A. |    | "Functional annotation of a full-length mouse cDNA collection."; |    | ris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S., | Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming | Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch KF., | ., Ring B., Ringwald M., Rodriguez I., Sakamoto N., | Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P., | Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., | Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., | Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F., | Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., | ml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio | Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J., | Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H., | M., Bata | )kazaki Y., Gojobori T., Bono H., Kasukawa T., Saito | sawa H., Kondo S., Yamanaka | ., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda | Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y., | MEDLINE=21085660; PubMed=11217851; | STRAIN=C57BL/6J; TISSUE-SKIN; | SEQUENCE FROM N.A. | [1] | NCBI_TaxID=10090; | Sciurognathi; Muridae; | Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; | Mus musculus (Mouse). | SERPINB7 OR 4631416M05RIK. | 4631416M05Rik protein (Megsin). | (TrEMBLrel. 21, Last | (TrEMBLrel. 17, | 01-JUN-2001 (TrEMBLrel. 17, Created) | ••• | Q9D695 PRELIMINARY; PRT; 380 AA. | 7. T. 1          |

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MEDILINE-21368006; PubMed-11473647;

MEDILINE-21368006; PubMed-11473647;

Magano N., Inagi R., Kurokawa K.;

"Cloning of rodent megsin revealed its up-regula mesangioproliferative nephritis.";

Kidney Int. 60:641-652(2001).

-1- SIMILARITY: BELONGS TO THE SERPIN FAMILY.

REMBL; AF105329; AAL16769.1; -.

InterPro; IPRO00215; Seppin.
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Mangaku M., Miyata T., Suzuki D., Umezono T., Hashimc Yagi M., Nagano N., Inagi R., Kurokawa K.;
"Cloning of rodent megsin revealed its up-regulation mesangioproliferative nephritis.";
Kidney Int. 60:641-652(2001).
EMBL; AK014524; BAB29410.1; -.
EMBL; AF105328; AAL16768.1; -.
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SMART; SM00093; SERPIN; UNKI
PROSITE; PS000284; SERPIN; UNKI
SEQUENCE 380 AA; 43050 MW;
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"Armatches 46;
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Submitted (JUL-2001) to the EMBL -i- SIMILARITY: BELONGS TO THE S EMBL; BC010313; AAH10313.1; -MGD; MGI:1914207; 2310046M08Rik. InterPro; IPR000215; Serpin.
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2310046M08RIK.
               NTASGYGNSSNSQSGLQSQLKRVFSDINA--SH--KDYDLSIVNGLFAEKVYGFHKDYIE
                                                                  MASIAAANAEFCENLFREMDDNQGNGNVFFSSLSLFAALALVRLGAQDDSLSQIDKLLHV
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                                                     MDPITTASTEFCLDVFKELSSNNVGENIFFSPLTTFYALSMLLLGTRGKSAEQMEKVLHY
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---+heria; Rodentia;
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57; Mismatches
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Sciurognathi; Muridae;
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RC MEDLINE=2108560; PubMed=11217851;
RA KAWAI J., Shindgawa A., Shinbata K., Yoshino M., Itoh M., Ishii Y.,
RA KAWAI J., Shindgawa A., Fukunibata K., Yoshino M., Adachi J., Fukuda S.,
RA Arakawa T., Hara A., Fukunibata Y., Konno H., Kasukawa T., Satto R.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kasukawa T., Satto R.,
RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kandota K., Matsudo T., Gissi C., King B., Kochiwa H.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Baldarelli R., Barsh G.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagshio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Washio T.,
RA Blake J., Bolt C., Fletcher C., Fujita M., Gariboldi M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.F.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Nordone P., Ring B., Ringwald M., Watshima Y., Storch K.-F.,
RA Nordone P., Ring B., Ringwald M., Watshima Y., Storch K.-F.,
RA Nordone P., Ring B., Ringwald M., Watshima Y., Storch K.-F.,
RA Nordone P., Ring B., Ringwald M., Watshima Y., Storch K.-F.,
RA Nordone P., Ring B., Ringwald M., H., Weitz C., Whittaker C., Wilming L.,
RA Nordone P., Ring R., Watshima Y., Storch K.-F.,
RA Nordone P., Ring R., Watshima Y., Storch K.-F.,
RA Nordone P., Ring R., Watshima Y., Storch M., Storch M.
                                                                                            Query Match
Best Local
                                                                Matches
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EMBL; AK00985; BAB26546.1; -.

EMBL; AK00903; BAB26017.1; -.

HSSP; P05619; 1HLE.

HGD; MGI:J914207; 2310046M08R1k.

InterPro: IPR000215; Serpin.

Pfam; PF00079; Serpin; 1.

SMART; SM00093; SERPIN; 1.
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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AA; 43482 MW;
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                                                                                         Score 798; DB 11;
Pred. No. 4.9e-47;
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Sciurognathi; Muridae;
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XX MEDIINE-21085669; PubMed-11217851;

XX MEDIINE-21085669; PubMed-11217851;

XX AGART T., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

XX Arakawa T., Hara A., Shibata K., Konno H., Adachi J., Fukuda S.,

XX Arakawa T., Hara A., Fukunishi Y., Konno H., Kondo S., Yamanaka I.,

XX Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

XX Arakawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

XX Arakawa K., Izawa M., Nishi T., Bono H., Kasukawa T., Saito R.,

XX Arakawa K., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saevanat T.,

XX Arakawa K., Matsuda H.A., Ashburner M., Batalov S., Coasavant T.,

XX Arakawa K., Matsuda H.A., Ashburner M., Batalov S., Coasavant T.,

XX Arakawa K., Okido T., Furuno M., Nishido I., Pesole G., Quackenbush J.,

XX Arakawa K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

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XX Arakawa K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

XX Arakawa K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

XX Arakawa K., Izawa M., Itali D., Homann M., Hume D.A., Kaniya M., Lee N.H.,

XX Arakawa K., Izawa M., Itali D., Hofmann M., Hume D.A., Kaniya M., Lee N.H.,

XX Arakawa K., Izawa M., Storeh K., F.,

XX Arakawa K., Izawa M., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,

XX Arakawa K., Izawa M., Kaniya Y., Kawaji H., Kohtsuki S.,

XX Arakawa K., Izawa M., Kaniya Y., Kawaji H., Kohtsuki S.,

XX Arakawa K., Izawa M., Kaniya Y., Kawaji H., Kohtsuki S.,

XX Arakawa K., Izawa M., Shibata Y., Kaniya M., Hayashizaki Y., Storch K.-F.,

XX Arakawa K., Izawa M., Kaniya Y., Kawaji H., Kohtsuki S.,

XX Arakawa K., Izawa M., Shibata Y., Kaniya M., Lee N.H.,

XX Arakawa K., Izawa M., Kaniya M., Kaniya M., Kaniya M., Kaniya M
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01-JUN-2001
01-JUN-2002
                                                                                "Functional annotation of a full-length mouse Nature 409:685-690(2001).

--- SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; AK009018; BAB26028.1; --
HSSP; PO5619; 1HLE.
MGD; MGI:1919119; 2300003F07Rik.
InterPro; IPR000215; Serpin.
                              Pfam; PF00079; serpin; 1. 
SMART; SM00093; SERPIN; 1
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Mammalia; Eutheria;
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2 (TrEMBLrel.
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Rodentia;
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Last annotation update)
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Euteleostomi;
; Murinae; Mus

CDNA

collection.";

K. -F.,

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SEQUENCE FROM NO...

STRAIN-C57BL/6J; TISSUE-EMBRYO;

RX MEDLINE-21085660; PubMed-11217851;

RA MEDLINE-21085660; PubMed-11217851;

RA MEDLINE-21085660; PubMed-11217851;

RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,

RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,

RA Arakawa T., Hara A., Fukunishi Y., Konno H., Kondo S., Yamanaka I.,

RA Arakawa T., Hara A., Fukunishi Y., Konno H., Kasukawa T., Saito R.,

RA Arakawa T., Lawa M., Nishi K., Kiyosawa H., Koshiwa H.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Kuchi P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,

RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,

RA Lyons P., Marchhoni L., Mashima J., Mazzarelli J., Mombaerts P.,

RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,

Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,

Wang T., Shibata Y., Storch K.-F.,

Wang T., Shibata Y., Storch K.-F.,
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SEQUENCE
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHPFLFVIRKD--DIILFSGKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MMNQKGKFRIGFIDELQAQILEMKYAMGKLSMLVLLPSCSEDNVNSLQELEKKINHEKLL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata;
Rodentia;
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37.8%;
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Pred. No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 143;
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; Murinae; Mus
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Q8VHP7;
Q1-MAR-2002
Q1-MAR-2002
Q1-JUN-2002
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EMBL;
HSSP;
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Query Match
Best Local :
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-i- SIMILARITY: BELONGS TO THE
                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00079; serpin; 1. SMART; SM00093; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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InterPro; IPR000215; Serpin
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Ragoussis J., Bird P.I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaiserman D., Knaggs S.,
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Hayashizaki Y.;
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BC011140; AAH;
AF426024; AAL;
P05619; 1HLE.
351
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145; Conserv
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                                                            LGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQST
                                                                                                        LLPEN-----DLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA
                                                                                                                                                     WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGG-INMYV
                                                                                                                                                                                      MYGADLAPVDELHASEDARKEINQWVKGQTEGKIPELLSVGVVDSMTKLVLVNAIYFKGM
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EFTVDHPFIFFIRHNPTSNVLFLGRVCSP
                      LFRADHPELFVIRKDDI - - ILFSGKVSCP
                                              LGVQDLFSSSKADLSGMSGSRDLFISKIVHKSFVEVNEEGTEAAAAATGGIATFCMLLPEE
                                                                                            LLPXDIEDESTGLKKIEKQITLEKLLEWTKRENLEFIDVHVKLPRFKIEESYTLNSNLGR
                                                                                                                                         WEEKFMTEDTTDAPFRLSKKDTKTVKMMYQKKKFPFGYISDLKCKVLEMPYQGGELSMVI
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AAL57486.1;
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aggs S., Scarff K.L.,
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Benarafa C.,
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Remold-O'D
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'Donnell E.,
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Created)
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PRELIMINARY

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Best Local S
Matches 152
                                                                                                        Q90758;
Q90758;
Q1-JUN-2001 (TrEMBLrel. 17, Cre
Q1-JUN-2001 (TrEMBLrel. 21, Las
Q1-JUN-2002 (TrEMBLrel. 21, Las
119005MO4RIK protein,
SERPINBIA OR 119005MO4RIK.
Mus musculus (Mouse).
Ekkaryota; Metazoa; Chordata; C.
Mammalia; Eutheria; Rodentia; S.
NCBL_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MCKeone R., Denny F., Cooley J., Benarafa C., Rem Ragoussis J., Bird P.I.;

"Comparison of human chromosome 6p25 with murine a greatly expanded Ov-serpin gene repertoire in t Genomics 0:0-0(2002).

EMBL; AF456025; AAL57487.1; -.

InterPro; IPR002016; Peroxidase.

InterPro; IPR002015; Serpin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00079; serpin; 1.

SMART; SM00093; SERPIN; 1.

PROSITE; PS00435; PEROXIDASE_1; UNKNOWN_1.

PROSITE; PS00284; SERPIN; UNKNOWN_1.

SEQUENCE 382 AA; 42887 MW; 35CBB6ADF677C8DB CRC64;
SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-STOMACH;
MEDLINE-21085660; Pubmed-11217851;
Kawai J., Shinagawa A., Shibata K.
                                                                                                                                                                                                                                                                                                                                                         Q9D7S8
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Kaiserman D., Knaggs S., Sc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID-10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            231
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNI---VEKQLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLPEDIEDESTGLKKIEEQLTLGKLHEWTKHENLRNIDVHVKLPRFKMEESYILNSNLCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LLPEN-----DLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WEEQFMTRETINAPFRLNKKDTKTVKMMYQKKKFPFGYISDLKCKVLEMPYQGGELSMVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----FDSVEDIHSCFQSLTAEV-SKLGASH---TLKLANRLYGEKTYNFLPEFLASTQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PQEVFTVDHPFLFFIRHNPTANMIFFGRVCSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGVQDLFSSGKADLSGMSGSRDLFYSKIVHKSFYDYNEQGTEAAAATGGIIQVLCEKMPT
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                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36.1%; Sc
38.8%; Pr
tive 76;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scarff K.L.,
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Last sequence update)
Last annotation updat
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Pred. No. 8.7e-41;
6; Mismatches 142
                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrată; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
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Yoshino M.,
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                                                                                                                                                                                                                                                       update)
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Itoh
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<u>.</u>
Ishii Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22;
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Homo

sapiens (Human)

SCCA2b.

(TrEMBLrel. (TrEMBLrel. (TrEMBLrel.

17, 17, 21,

Created)

Last sequence update)
Last annotation updat

update)

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RESULT 9
Q9BYF7
ID Q9BY
AC Q9BY
DT 01-J
DT 01-J
DT 01-J
DT SCC+A
GN SCC+A
GN SCC+A
GN HOMC
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RA AiZawa K., IZawa M., Nishi K., Kiyosawa H., Kondo S., Yemanaka I.,
RA AiZawa K., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavent T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Wordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA Sasaki H., Sato K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA Hayashta-koris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA Hayashta-koris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 150
                                                                                                                        Q9BYF7;
Q9BYF7;
01-JUN-2001
01-JUN-2001
01-JUN-2002
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SEQUENCE
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Functional annotation of a full-length mouse
"Functional annotation of a full-length mouse
"Induce 409:685-690(2001).
"Induce 409:685-690(2001).
"Induce 409:685-690(2001).
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InterPro; IPR000215;
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                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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Best Local
SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-EMBRYO;
MEDLINE-21085660; PubMed-11217851;
KAWAI J., Shinagawa A., Shibata K., Yoshino M
Arakawa T., Hara A., Fukunishi Y., Konno H.,
Alawa K., Izawa M., Nishi K., Kiyosawa H., 8
                                                                                                                                                                                                                                                                 Q9D1Q5 PRELIMINARY; PRT; 387 AA. Q9D1Q5; Q9D1Q5; Q1-JUN-2001 (TrEMBLrel. 17, Created) 01-JUN-2001 (TrEMBLrel. 17, Last sequence up 01-JUN-2002 (TrEMBLrel. 21, Last annotation 18 days embryo cDNA, RIKEN full-length enrice clone: 1110001H02, full insert sequence.
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SMART; SM00093; SERPIN;
PROSITE; PS00284; SERPIN
                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
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Submitted (JUL-2000) to the Submitted HELONGS TO EMBL; AB046400; BAB40773.1;
HSSP; P01008; 1ATH.
                                                                                                                                                               NCBI_TaxID=10090
                                                                                                                                                                                                                                Mus musculus
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Mammalia; Eutheria;
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                                                                                                                                                                                                                             (Mouse).
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Rodentia;
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39.0%;
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tigen Transcripts Produced
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Pred. No. 6e-4
32; Mismatches
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                                                                                                                                                                                   Craniata; Veri
Sciurognathi;
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                                                     Yoshino M.,
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                                                                                                                                                                                   Vertebrata;
thi; Muridae;
                                                                                                                                                                                                                                                                                                                                      update)
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        M., Itoh M., Ishii
, Adachi J., Fukuda
Kondo S., Yamanaka
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by Alternative
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Serine SPI12.

proteinase

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Last Last NK13. Created)

sequence update) annotation updat

update)

04, 19, 21,

Eukaryota; Mammalia; E

; Metazoa; Eutheria;

Chordata; Rodentia;

Craniata; Ver Sciurognathi;

Vertebrata;
thi; Muridae;

Euteleostom1;

Mus musculus (Mouse)

008804; 01-JUL-1997 01-DEC-2001 01-JUN-2002

(TrEMBLrel.

008804

PRELIMINARY;

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Matches 143
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Functional annotation of a full-length mouse cD!
Nature 409:685-690(2001).

-!- SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; AK003220; BAB22650.1; -.
HSSP; P05120; 1BY7.
MGD; MGI:1277952; Scca2.
InterPro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
SMART; SM0093; SERPIN; 1.
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SEQUENCE
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LFRADHPFLFVI--RKDDIILFSGKVSCP
                                                                                  LGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQST
                                                                                                                                                    NMYVLLPE--NDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRA
                                                                                                                                                                                                                       FKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNG-GI
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                                                                  MGMVDAFDPQKADFSGMSSIPGLVVSKVLHKSFVEVNEEGTEAAAATGVEVSVRSAQIAE
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Pred. No. 2.3e-39;
1; Mismatches 144
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O1-JUN-2002 (TrEMBLre
SPI3L2:
SPI3L2:
SPI3L2:
Mus musculus (Mouse):
Eukaryota; Metazoa; C
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Sun J., Ooms L., Bird C.H., Sutton V.R.,
"A new family of 10 murine ovalbumin ser
proteinase inhibitor 8 and two homologs
(proteinase inhibitor 9).";
J. Biol. Chem. 272:15434-15441(1997).
                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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MGD; MGI:894688; Spi12.
InterPro; IPR000215; Serpin.
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 Chordata;
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                                  Last sequence update)
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Pred. No. 3e-39;
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 Craniata; Vertebrata;
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two homologs
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MEDLINE-99047536; PubMed
Bartuski A.J., Kamachi Y
Silverman G.A.;
"A murino
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"Comparison of Human Chromosome 6p25 with Murine Chromosome a Greatly Expanded Ov-Serpin Gene Repertoire in the Mouse.";

a Greatly Expanded Ov-Serpin Gene Repertoire in the Mouse.";

Submitted (SEP-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AP425084; AAL65910.1;

InterPro; IPR000215; Serpin.
                                                                                                                                                                                                                                                           01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Squamous cell carcinoma antigen 2.
"A murine ortholog of the human serpin inhibits chymotrypsin-like serine prote Genomics 54:297-306(1998).
                                                                                                                                                                                          Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
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Rodentia;
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Pred. No. 3.1e-39;
5; Mismatches 140;
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Sciurognathi;
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SERPIN FAMILY

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Best Local :
                                                                                                                                SEQUENCE FROM N.A.

Roberts M.C., Butt A.T., Schenkel E.F., Wong E
"Turkey ovalbumin cDNA.";

Submitted (MAY-1998) to the EMBL/GenBank/DDBJ

Submitted (MAY-1980) TO THE SERPIN FAMILY.
                                                                                                                                                                                                                                                        01-AUG-1998
01-AUG-1998
01-DEC-2001
                                                                                                                                                                                                                                                                                          073860
073860;
                                             Serpin.
SEQUENCE
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SEQUENCE
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                                                                            InterPro; IPR000215; Serpin.
Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
                                                                                                                                                                                                                         Meleagris gallopavo (Common turkey).
Eukaryota; Metazoa; Chordata; Crania
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InterPro; IPR000215; Ser
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NCBI_TaxID=9103;
                                                                                                                                                                                                                                               Ovalbumin
                                                                 PROSITE; PS00284; SERPIN; UNKNOWN_1
                                                                                                                        -I- SIMILARITY: BELONGS TO CEMBL; AF064546; AAC16664.1;
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P; P05120; 1BY7
; MGI:1277952;
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                                                                                                               P01012; 10VA
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138; Conser
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           33.8%;
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                     Score 663;
Pred. No. 9.4e
3; Mismatches
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Pred. No. 4.7e-39;
                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; ; Galliformes; Meleagrididae; Meleag
                                                                                                                                                                                                                                                                                                     PRT;
                                             0B09E86D036BEDD3
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annotation update)
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           DB 13;
9.4e-38;
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Q9D1E7;
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
18 days embryo cDNA, RIKEN full-length enriched lib
clone:1110013A16, full insert sequence.
                                                                 Nature 409:685-690(2001).
-!- SIMILARITY: BELONGS TO EMBL; AK003650; BAB22916.1; HSSP; P05120; 1BY7.
                                         MGD; MGI:1277952;
                                                                                                                                                                                                        Hayashizaki Y.;
"Functional annotation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=21085660; PubMed=11217851;
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Mammalia; Eutheria;
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Sciurognathi; Muridae;
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SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
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Sequence 386 AA; 44313 MW; 2A3CFA78A73AD004 CRC64;
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Search completed: July 11, 2003, 11:59:12 Job time: 167.904 secs

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Result
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Maximum DB seq length: 2000000000
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Perfect score:
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Sequence 1, Appli
Sequence 1, Appli
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Sequence 2, Appli
Sequence 281, App
                                                                                                                   Description
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|            | 36                   | ა<br>6             | 37         | 37         | 37            | 37          | 37             | 37                | 37             | 38              | 38            | 38              | 38           | 38              | 38               | 38            | 38               | 38            | 38               | 38                | 39            | 39          | 9              | 39            | 3<br>9          | 39                | 39                | ယ္               | ب<br>و            | ט<br>ט<br>ט      | . u               | ט נ<br>ס ע        | י<br>טע          | ) (c         | 39                | 52             | 52              | 52                |
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| AT TOWERTS | US-09-724-059-152932 | S-09-724-059-15137 | US01-29288 | 10-219-999 | -08-384-032-4 | 8-172-528A- | -08-070-689A-5 | S-08-091-028A-    | 08-091-028-1   | -60-191-681-724 | -60-191-637-9 | -60-173-464-749 | -60-167-245- | -09-791-537-126 | -09-614-150-9252 | -60-191-681-1 | -60-191-637-1355 | -60-167-245-5 | -09-791-537-1347 | -09-614-150-1     | -10-110-030-4 | -09-936-883 | -09-508-997A-4 | -60-096-409-1 | -10-179-131-780 | -09-248-796-14712 | -09-724-059-17393 | 09-724-059-17141 | -09-724-059-16901 | -09-120-050-1673 | -09-724-059-16397 | -00-724-050-16160 | 09-724-059-15055 | -09-724-059- | -09-724-059-15173 | S-10-110-030-2 | -10-091-442-    | -09-936-883A-     |
|            | 152932               | Sequence 151372    | 140,       | 5991       | 4, Ap         | 13,         | 5              | Sequence 1, Appli | quence 1, Appl | equence 73      | equence 9281, | 2749            | 386,         | 126235,         | 9252, A          | 10688,        | 13559,           | 514, Ap       | 134773           | Sequence 13518, A | ^             | _           | 4              |               | 7804,           | 14712             | 17393             | 17141            | Sequence 169012.  | 16671            | 16207             | equence 15160     | equence 15017    | equence      | e 15173           | equence 2, App | equence 34, App | Sequence 2, Appli |

## ALIGNMENTS

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Sequence 1, Application US/09140719

Sequence 1, Application US/09140719

GENERAL INFORMATION:
APPLICANT: IWASA, FUYUKİ
APPLICANT: IWASA, FUYUKİ
APPLICANT: IWASA, FUYUKİ
APPLICANT: NAKAZATO, HİTOSHİ
APPLICANT: NAKAZATO, HİTOSHİ
APPLICANT: KURIHARA, TATSUYA
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAICHI, KOZOMİ
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: BURNS, DOANE, SWECKER 6 MATHİS
STREET: P.O. BOX 1404
CITY: Alexandria
STATE: VİRGİNİA
COUNTRY: United States
IDN 22313-1404
COMEDUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATLIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN RELEASE #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/09/140,719
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US-10-091-442-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  eguence 1, Application
GENERAL INFORMATION:
APPLICANT: TSUJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 9 amino acids
TYPE: amino acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 07-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                      PRIOR APPLICATION DATA:
                                                                                                       SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION DATA:
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CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
                                                 APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: CUNKNOWN>
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APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                            OF SEQUENCES:
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YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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Pred. No.
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                                                                                                                           Version #1.30
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US-08-091-028A-34
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                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5
FILING DATE: 04-MAR-1993
                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA:
APPLICATION MUMBER: US/08/091,028A
FILING DATE: 14-UL-1993
                                                                                                                                                                                                                         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
COPPRATING SYSTEM: PC-DOS/MS-DOS
COPPRATING SYSTEM: PC-DOS/MS-DOS
                FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
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APPLICANT: NAKAZATO, Hiroshi
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CITY: Alexandria
STATE: Virginia
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                                                                                                                                            CLASSIFICATION:
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YAMAICHI, Kozo
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INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS:
Local Similarity 100.0%; es 9; Conservation
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FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                        MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
                                                                                                                                                            LENGTH: 9 amino acids TYPE: amino acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                          NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET_NUMBER: 001560-247
                                                                                                                              TOPOLOGY: linear
ULE TYPE: peptid
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                        Score 52; DB 24;
Pred. No. 4.2e+06;
        Mismatches
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Best Local Similarity 100.0%;
Matches 9; Conservative (
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
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APPLICATION NUMBER: US 01
FILING DATE: 07-JUN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                       APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
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                                                                                                         APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
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                                                     NAME: MCGOWAN, MALCOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
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TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
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YAMAICHI, KOZO
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(703) 836-6620
703) 836-2021
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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-508-997A-2
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                                         Query Match
Best Local Similarity
""" 9; Conserve
                                                                                                            ; LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-791-537-281
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US-09-791-537-281
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APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
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                                                                                                                                                                  SOFTWARE: PatentIn version 3.0 SEQ ID NO 281
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Best Local 9
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APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY ME
TITLE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/508,997A CURRENT FILING DATE: 2000-06-27 PRIOR APPLICATION NUMBER: JP 09-275302 PRIOR FILING DATE: 1997-09-22
                                                                                                                                                                                               CURRENT FILING DATE: 2001-02-22 NUMBER OF SEQ ID NOS: 153055
                                                                                                                                                                                                           CURRENT FILING DATE: 2001-02-22
                                                                                                                                                                                                                                         FILE REFERENCE: 261/210
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LENGTH: 380 amino acids
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188 SETINCHFK 196
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Pred. No.
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Pred. No. 1.1;
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Pred. No.
                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/09936883A GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP
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ORGANISM: Homo sapiens
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC COMPATIBLE

COMPUTER: FLOPPY DESCRIPTION

COMPUTER: COMPATIBLE

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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SETINCHFK 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                                         APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                                                             APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: <Unknown>
                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                     APPLICATION DATA:
                                                                               APPLICATION NUMBER: JP 4-212305
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KURIHARA, Tatsuya
YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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JP 6-067339
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Pred. No. :
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US-09-724-059-151732
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                                                                                                                                                                                                                                                                         Sequence 151732, Application US/09724059 GENERAL INFORMATION:
                               SOFTWARE: MacAllLister
SEQ ID NO 151732
LENGTH: 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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                                                                                                                                           APPLICANT: Choo, Yen
APPLICANT: Klug, Aaron
APPLICANT: Isalan, Mark
TITLE OF INVENTION: Nucleic Acid Binding Proteins
FILE REFERENCE: P2500USM
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT FILING DATE: 2000-11-28
                                                                                                           PRIOR APPLICATION NUMBER: GB9710809.6 PRIOR FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/110,030 CURRENT FILING DATE: 2002-04-03
                                                                                          NUMBER OF SEQ ID NOS: 1407122
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ORGANISM: Artificial sequence
                  TYPE: PRT
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les 9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                  188 SETINCHFK 196
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TELEFAX: (703) 83
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REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 00
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Pred. No.
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US-09-724-059-154252
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; OTHER INFORMATION: Polypeptide sequence
US-09-724-059-151732
                                                                                                       ; OTHER INFORMATION: Polypeptide sequence US-09-724-059-156652
                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-724-059-156652
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Best Local Similarity bo.,
Conservative
                                                                                                                                                                  PRIOR APPLICATION NUMBER: GB9710809.6
PRIOR FILING DATE: 1997-05-23
NUMBER OF SED ID NOS: 1407122
SOFTWARE: MBCAllLister
SEQ ID NO 15652
LENCTH: 23
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: GB9710809.6
PRIOR FILING DATE: 1997-05-23
NUMBER OF SEQ ID NOS: 1407122
SOFTWARE: MACAILLISter
SEQ ID NO 154252
LENGTH: 23
TYPE: PRT
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Best Local 9
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                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 156652,
                                                                     Query Match
                                                                                                                                                                                                                                                                                  APPLICANT: Klug, Aaron
APPLICANT: Isalan, Mark
TITLE OF INVENTION: Nucleic Acid Binding Proteins
FILE REFERENCE: P2500USM
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT FILING DATE: 2000-11-28
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APPLICANT: Isalan, Mark
TITLE OF INVENTION: Nucleic Acid Binding Proteins
FILE REFERENCE: P2500USM
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT FILING DATE: 2000-11-28
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                                                                                                                                                    ORGANISM: Artificial sequence
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hes 6; Conserv
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Local Similarity 66.7%;
nes 6; Conservative
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        SETINCHEK 9
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                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  Application US/09724059
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66.7%;
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Pred. No.
                                      Mismatches
                                                       Score 39; DB 21;
Pred. No. 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 39; DB
Pred. No. 16;
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APPLICANT: Isalan, Mark
FITLE OF INVENTION: Nucleic Acid Binding Pro
FILE REFERENCE: P2500USM
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: GB9710809.6
PRIOR FILING DATE: 1997-05-23
NUMBER OF SEQ ID NOS: 1407122
SOFTWARE: MACALLLister
SEQ ID NO 159172
RESULT 15
US-09-724-059-163972
US-09-724-059-163972, Application US/09724059
GENERAL INFORMATION:
APPLICANT: Choo, Yen
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; Sequence 159172, App.

; GENERAL INFORMATION
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US-09-724-059-161692
                                                                                                                                                                                                                                                                                                                                                SOFTWARE: MacAllLister SEQ ID NO 161692
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Best Local :
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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                                                                                                                                                                                    Matches
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APPLICANT: Isalan, Mark
TITLE OF INVENTION: Nucleic Acid Binding Proteins
FILE REFERENCE: P2500USM
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: GB9710809.6
PRIOR FILING DATE: 1997-05-23
NUMBER OF SEQ ID NOS: 1407122
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Choo, Yen
                                                                                                                                                                                                                                                                                             LENGTH: 23
TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial sequence FEATURE:
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Local Similarity 66.7%;
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13 SETLSCHIK 21
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Pred. No.
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APPLICANT: Klug, Aaron
APPLICANT: Isalan, Mark
FILE REFERENCE: P2500USM
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT APPLICATION NUMBER: US/09/724,059
CURRENT APPLICATION NUMBER: GB9710809.6
PRIOR APPLICATION NUMBER: GB9710809.6
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Maximum DB seq length: 200000000
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

2: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

3: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

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5: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

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US-10-126-055A-263
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US-60-455-444-4692
US-10-424-599-20278
US-10-424-599-158716
US-10-425-114-71838
US-10-219-0518-13964
US-10-424-599-23211
US-10-425-114-599-23211
US-10-425-114-599-23211
US-10-425-114-5966
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                                                                                           Sequence 140, App
Sequence 140, App
Sequence 223211,
Sequence 58872, A
Sequence 57566, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                     Sequence 2, Appli
Sequence 263, App
Sequence 3006, App
Sequence 4692, Ap
Sequence 4692, Ap
Sequence 202788,
Sequence 19, Appl
Sequence 188716,
Sequence 264, App
Sequence 264, App
Sequence 62667, A
                                                                                                                                                                                                                                                    Sequence 47479, A
Sequence 13964, A
Sequence 71838, A
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| 45               | 44                | 43                  | 42               | 41      | 40                | 39   | 38         | 37                | 36                 | ω<br>5            | 34                | 3<br>3            | 32                 | 31     | 30                | 29                | 28                  | 27                  | 26                   | 25                 | 24                   | 23               | 22                   | 21                  | 20                   |
|------------------|-------------------|---------------------|------------------|---------|-------------------|------|------------|-------------------|--------------------|-------------------|-------------------|-------------------|--------------------|--------|-------------------|-------------------|---------------------|---------------------|----------------------|--------------------|----------------------|------------------|----------------------|---------------------|----------------------|
| 34               | ω<br><b>4</b>     | 34                  | 34               | 34      | 34                | 34   | 34         | 34                | 34                 | ω<br>4            | 34                | 34                | 34                 | 3<br>4 | 34                | 34                | 34                  | 34                  | 34                   | ω<br>G             | ა<br>ა               | 35               | မ                    | 35                  | 36                   |
| 65.4             | ٠                 | 65.4                | •                | 65.4    | 65.4              | 65.4 | 65.4       | •                 | •                  | 65.4              | 65.4              | 65.4              | 65.4               | 65.4   |                   | 65.4              | 65.4                | 65.4                |                      | 67.3               |                      |                  | 67.3                 | 67.3                | 69.2                 |
| 292              | 292               | 292                 | 215              | 201     | 201               | 201  | <b>201</b> | 201               | 201                | 201               | 201               | 201               | 201                | 127    | 123               | 120               | 117                 | 75                  | 56                   | 1173               | 864                  | 858              | 522                  | 309                 | 1215                 |
| 12               | 12                | 12                  | 12               | 12      | 12                | 12   | 12         | 12                | 12                 | 12                | 12                | 12                | 12                 | 12     | 12                | 12                | 12                  | 12                  | 12                   | 12                 | 12                   | 12               | 12                   | 12                  | 12                   |
| -599-            | 25-114-4          | US-10-425-114-39749 | US-10-360-186-54 | 05-654- | US-10-194-486-608 | ٠    | 37-749     | US-10-187-755-608 | US-10-174-575A-608 | US-10-174-575-608 | US-10-205-892-608 | US-10-223-089-344 | US-10-125-923A-608 | 84-5   | US-10-416-991-110 | US-10-416-991-111 | US-10-425-114-40164 | US-10-425-114-50539 | US-10-424-599-192457 | US-10-369-493-5025 | US-10-437-963-153309 | US-10-369-294-18 | US-10-282-122A-73834 | US-10-425-114-51109 | US-10-437-963-129618 |
| Sequence 183093, | Sequence 40007, A | -                   | 54,              | 344,    | ,809              | 608, | 608,       | 608,              | e 608,             | ,809              | 809               | Sequence 344, App | 608,               | 5938,  | Sequence 110, App | Sequence 111, App | Sequence 40164, A   |                     | 192457               |                    | Sequence 153309,     |                  |                      | Sequence 51109, A   | Sequence 129618,     |

# ALIGNMENTS

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US-10-126-052A-263
US-10-126-052A-263
(Sequence 263, Application US/10126052A
(SENERAL INFORMATION:
APPLICANT: Aziz, Natasha
APPLICANT: Murray, Richard
(APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
FILE REFERENCE: 018501-001530US
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2. Application US/09936883C
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A method for Detecting Megsin Protein
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
CURRENT FILING DATE: 2001-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-03-19 PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 2
LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
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Matches
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CURRENT APPLICATION NUMBER: US/10/126,052A
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100.0%; Pred. No. 0.15;
tive 0; Mismatches
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US-60-455-444-4692
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SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 3006
LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
US-60-443-566-3006
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US-60-443-566-3006
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Best Local Similarity
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; ORGANISM: Homo sapiens
US-10-126-052A-263
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PRIOR FILING DATE: 2001-05-10
PRIOR PPLICATION NUMBER: US 60/339,245
PRIOR FILING DATE: 2001-11-09
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2002-04-12
NUMBER OF SEQ ID NOS: 691
                                                                                                                 Sequence 4692, Application US/60455444
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETI
FILE REFERENCE: CL001455
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SEQ ID NO 263
LENCTH: 380
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Best Local
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 4692 LENGTH: 380
                                                     CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED W
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF
FILE REFERENCE: CL001447
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CURRENT FILING DATE: 2003-01-30
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PRIOR APPLICATION NUMBER: US 60/284,770
PRIOR FILING DATE: 2001-04-18
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9; Conserv
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ilarity 100.0%; Pred. No. 0.15;
Conservative 0; Mismatches
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Pred. No.
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                                                                                                                               US-10-424-599-202788
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US-60-465-241-4692
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CURRENT APPLICATION NUMBER: US/60/465/241
CURRENT FILLING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
TYPE: PRT
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Best Local S
Matches 9
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SEQ ID NO 202788
LENGTH: 53
TYPE: PRT
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APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
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APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                                         Matches
                                                                                         Query Match
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Best Local (
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy, Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(5323)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
                                                                                                                                                 OTHER INFORMATION: Clone ID: PAT_MRT3847_25142C.1.pep
                                                                                                                                                                                   NAME/KEY: unsure
LOCATION: (1)..(53)
OTHER INFORMATION: unsure at all Xaa locations
                                                                                                                                                                                                                                                          ORGANISM: Glycine max
                                                                                                                                                                                                                                          FEATURE:
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                                                       Local Similarity
nes 6; Conserv
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2 ETINCHEK : | | | | | | |
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                                                       Conservative
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Pred. No. 0.15;
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Pred. No. 0.15;
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CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PATENTIN VOIC 2.0
SEQ ID NO 19
US-10-45-114-47479
US-10-45-114-47479
Sequence 47479, Application US/10425114
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                      : LENGTH: 56
: TYPE: PRT
: ORGANISM: Glycine max
: PEATURE:
: CTHER INFORMATION: Clone ID: PAT_MRT3847_114340C.1.pep
US-10-424-599-158716
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: LOCATION: 51, 94

: OTHER INFORMATION: Xaa is unknown.

US-09-936-883C-19
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APPLICANT: MIYATA, Toshio
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Best Local
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CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwel
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT
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TYPE: PRT
ORGANISM: Rattus norvegicus
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85.7%;
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Pred. No.
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Pred. No. 36;
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                                                                                                                                                                                                                                                                                                                            US-10-219-051B-13964
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US-10-219-051B-13964
                                                                                                                            RESULT 11
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CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 47479
LENGTH: 275
                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Perl script
SEQ ID NO 13964
. LENGTH: 320
TYPE: PRT
                                                                   Sequence 71838, Application US/10425114 GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/312,147
PRIOR ETLING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: US 60/346,382
PRIOR FILING DATE: 2001-11-01
PRIOR APPLICATION NUMBER: US 60/333,347
PRIOR FILING DATE: 2001-11-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Hospital / Bayer AG
TITLE OF INVENTION: Nucleotide sequences involved in pain
FILE REFERENCE: LeA 35693 Foreign Countries
CURRENT APPLICATION NUMBER: US/10/219,051B
CURRENT FILING DATE: 2003-05-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE REFERENCE: 38-21(53313)B
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                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                             ORGANISM: Rattus norvegicus
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: SWISS-Prot / CAA41937
DATABASE ENTRY DATE: 2000-05-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: The General Hospital Corporation doing business as Massachusetts Genera
                                   APPLICANT:
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 APPLICANT:
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ORGANISM: Zea mays
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163 SSTLSCHFR 171
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Kovalic, David K.
Screen, Steven E
Tabaska, Jack E
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                                                    Liu, Jingdong
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zhou, Yihua
Kovalic, David
Screen, Steven
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77.8%;
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Pred. No.
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Gaps

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Length 275; Indels

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rabaska, Jack E

TITLE OF INVENTION: Nucleic acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

FILE REFERENCE: 38-21(53313)B

CURRENT APPLICATION NUMBER: US/10/425,114

CURRENT FILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 73128

SEQ ID NO 71838

LENGTH: 638

TYPE: Dem
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Sequence 140, Application PC/TUS0129288A
GENERAL INFORMATION:
APPLICANT: Microbia, Inc.
TITLE OF INVENTION: Modulation of Secondary Metabolite Production PTITLE OF INVENTION: Sinc Binuclear Cluster Proteins
FILE REFERENCE: 14184-019W01
CURRENT APPLICATION NUMBER: PCT/US01/29288A
CURRENT FILING DATE: 2001-09-19
PRIOR APPLICATION NUMBER: US 60/233,564
PRIOR FILING DATE: 2000-09-19
NUMBER OF SEQ ID NOS: 308
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                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Holtzman, Douglas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.1
SEQ ID NO 140
LENGTH: 1030
                                                                                                                                                                                                                                                                                                          Sequence 140, Application US/10149310
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APPLICANT:
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                                APPLICANT: Sherman, Amir
TITLE OF INVENTION: Modulation of Secondary Metabolite Production
TITLE OF INVENTION: Zinc Binuclear Cluster Proteins
FILE REFERENCE: 14184-019US1
CURRENT APPLICATION NUMBER: US/10/149,310
CURRENT FILING DATE: 2003-02-19
PRIOR APPLICATION NUMBER: PCT/US01/29288
PRIOR FILING DATE: 2001-09-19
PRIOR APPLICATION NUMBER: US 60/233,564
RIOR APPLICATION NUMBER: US 60/233,564
RIOR APPLICATION NUMBER: US 60/233,564
                    NUMBER
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PatentIn
                SEQ ID NOS: 308
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Maxon, Mary
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66.7%;
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Pred. No.
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Pred. No. 1.8e+02;
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; TYPE: PRT ; ORGANISM: Saccharomyces cerevisiae US-10-149-310-140
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                                                                                                                         NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 58872
LENGTH: 239
TYPE: PRT
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                                                                                                                                                                                                                          APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
                                                                                                                                                                                  CURRENT FILING DATE: 2003-04-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid
TITLE OF INVENTION: Plants and Uses
FILE REFERENCE: 38-21(53223)B
                                                                                                                                                                                                                  FILE REFERENCE: 38-21(53313)B
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                                                                                                                                                                                                                                                                                                                                        APPLICANT: Liu, Jingdong
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                                                                                                        ORGANISM: Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Glycine max
                                                                           OTHER INFORMATION: Clone ID: 700805614_FLI.pep
                                                                                             FEATURE:
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 Similarity
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Zhou Yihua
   Conservative
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Score 36; DB 12;
Pred. No. 89;
2; Mismatches 1
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Pred. No.
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Maximum Match 100%
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Maximum DB seq
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1: //ggn2_6/ptodata/1/paa/VS06_COMB.pep:*

2: //ggn2_6/ptodata/1/paa/VS06_COMB.pep:*

3: //ggn2_6/ptodata/1/paa/VS08_COMB.pep:*

4: //ggn2_6/ptodata/1/paa/VS081_COMB.pep:*

5: //ggn2_6/ptodata/1/paa/VS081_COMB.pep:*

6: //ggn2_6/ptodata/1/paa/VS082_COMB.pep:*

7: //ggn2_6/ptodata/1/paa/VS083_COMB.pep:*

8: //ggn2_6/ptodata/1/paa/VS083_COMB.pep:*

9: //ggn2_6/ptodata/1/paa/VS085_COMB.pep:*

10: //ggn2_6/ptodata/1/paa/VS085_COMB.pep:*

11: //ggn2_6/ptodata/1/paa/VS085_COMB.pep:*

12: //ggn2_6/ptodata/1/paa/VS088_COMB.pep:*

13: //ggn2_6/ptodata/1/paa/VS088_COMB.pep:*

13: //ggn2_6/ptodata/1/paa/VS088_COMB.pep:*
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length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          July 11, 2003, 11:54:32; Search time 22.0333 Seconds (without alignments) 204.833 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40
1 WQSAFTK 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-091-442-2
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(/ Cgn2_6/ptodata/1/paa/US087_COMB.pep:*
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                                 /cgn2_6/ptodata/1/paa/US100_COMB.pep:*
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/cgn2_6/ptodata/1/paa/US102_COMB.pep:*
/cgn2_6/ptodata/1/paa/US60_COMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| 44<br>44<br>44<br>44                                                                                           | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                              | 33<br>33<br>33<br>34<br>33<br>34                                                                                                                                  | 118<br>221<br>221<br>223<br>234                                                        | 7<br>8<br>8<br>9<br>10<br>11<br>11<br>12<br>13<br>14<br>14<br>15                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32<br>32<br>32                                                                                                 | 333333                                                                             |                                                                                                                                                                   | 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                                                | 44400000000000000000000000000000000000                                                                                                                                                                                                                    |
| 80.0<br>80.0<br>80.0<br>77.5                                                                                   |                                                                                    | 80.00000                                                                                                                                                          | 87.5<br>87.5<br>87.5<br>87.5<br>87.5<br>87.5<br>87.5                                   | 100.0<br>100.0<br>100.0<br>90.0<br>90.0<br>90.0                                                                                                                                                                                                           |
| 1072<br>1072<br>1074<br>1074<br>1074                                                                           | 940<br>944<br>944<br>959<br>1072                                                   | 219<br>331<br>404<br>736<br>931<br>940                                                                                                                            | 85<br>85<br>95<br>139<br>586<br>546<br>127                                             | . 380<br>380<br>380<br>380<br>380<br>80                                                                                                                                                                                                                   |
| 27<br>27<br>27<br>1                                                                                            | 18<br>27<br>27<br>25<br>20                                                         | 1<br>27<br>27<br>21<br>21<br>18                                                                                                                                   | 27<br>27<br>27<br>27<br>27<br>27<br>27                                                 | 23<br>24<br>25<br>25<br>25<br>25<br>25<br>25<br>25<br>25                                                                                                                                                                                                  |
| US-60-191-637-13325<br>US-60-191-681-10493<br>US-60-167-217-13330<br>US-60-173-464-10850<br>PCT-US00-06012-112 | 09-438-1856<br>USO1-08656<br>60-389-987<br>60-412-418<br>10-109-2680<br>09-614-150 | PCT-US01-08631-60256 PCT-US01-08631-48701 US-60-360-039-12166 US-10-108-260A-4601 US-09-791-537-70938 US-09-930-446-43 US-09-930-452A-500 US-09-438-185-468       | 60-160-202-60-169-842-60-164-763-60-164-763-70501-14827-104-047-60-169-842-60-169-842- |                                                                                                                                                                                                                                                           |
| <b></b>                                                                                                        | 468,<br>9504,<br>2257,<br>2257,<br>12, 7                                           | Sequence 60256, A Sequence 48701, A Sequence 12166, A Sequence 12166, A Sequence 4001, Ap Sequence 70938, A Sequence 43, Appl Sequence 500, App Sequence 468, App | e e 31533                                                                              | Sequence 2, Appli<br>Sequence 34, Appli<br>Sequence 2, Appli<br>Sequence 31356, A<br>Sequence 41856, A<br>Sequence 6, Appli<br>Sequence 6, Appli<br>Sequence 6, Appli<br>Sequence 4, Appli<br>Sequence 4, Appli<br>Sequence 4, Appli<br>Sequence 4, Appli |

# ALIGNMENTS

RESULT 1 US-09-140-719-2 Sequence 2, Applicati
GENERAL INFORMATION: APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT: COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPOSITION
OF COMPOSITION
OF COMPOSITION
OF COMPOSITION
COURTERNY APPLICATION DATA:
COURTERNY APPLICATION DATA:
COURTERNY APPLICATION DATA:
COURTERNY APPLICATION DATA: APPLICANT: APPLICANT: YAMAGUCHI, NOZOMİ
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS: STREET: P.O. Box CITY: Alexandria STATE: Virginia APPLICATION NUMBER: ADDRESSEE: Application US/09140719 : ISHIDA, Nobuhiro : KURIHARA, Tatsuya : YAMAICHI, KOZO : YAMAGUCHI, NOZOMi E: Burns, Doane, Swecker & Mathis P.O. Box 1404 MIURA, Kenju TSUROUOKA, Nobuo NAKAZATO, Hiroshi TSUJIMOTO, Masafumi IWASA, Fuyuki US/09/140,719

08-AUG-1998

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US-10-091-442-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2, Application GENERAL INFORMATION:
APPLICANT: TSUJ
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 08/091,028
APPLICATION NUMBER
FILING PRIOR NUMBERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                PRIOR APPLICATION DATA
                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 WQSAFTK 7
                                                                                                                                                                                            STREET: P.O. Box 1404
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
                                             APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/10091442
APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                          COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                           ADDRESSEE: Burns, Doane,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                            OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                         KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NOZOMi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                             ISHIDA, Nobuhiro
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NAKAZATO, Hiroshi
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836-2021

NO: 2:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 40; DB 15;
Pred. No. 4.2e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                             Swecker & Mathis
                                                                                                               Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 7;
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US-08-091-028A-34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 2:
APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
COMMANDE: Datastr. PC-DOS/MS-DOS
                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                           STATE: Virginia COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                               STREET: George Ma
CITY: Alexandria
STATE: Virginia
                                                                                                                                                 APPLICATION NUMBER: US/08/091,028A FILING DATE: 14-JUL-1993
                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity les 7; Conserv
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FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear MOLECULE TYPE: peptid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 001560-247 TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                     George Mason Bldg., Washington & Prince Sts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MIURA, Kenju
ISHIDA, Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YAMAGUCHI, Nozomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TSURUOKA, Nobuo
NAKAZATO, Hiroshi
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YAMAICHI, Kozo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IWASA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       Burns, Doane, Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fuyuki
                                                                                                                                                                                                                                                                                                                                                                                                                                               MEGAKARYOCYTE DIFFERENTIATION FACTOR: 34
                                                                                             JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 40; DB 24;
Pred. No. 4.2e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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REGISTRATION NUMBER:

30,427

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US-09-140-719-34
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; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-091-028A-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 34, Applicat
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (703) 836-66 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: F1Dppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAN, MALCOLM N. 19.3
                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 01
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 07
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Burns, Doane, Swecker & Mathis STREET: P.O. Box 1404 CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: United States ZIP: 22313-1404
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181 WQSAFTK 187
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    836-6620
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                                       001560-247
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US-09-791-537-281
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                                                                                                                    ; ORGANISM: Homo sapiens US-09-791-537-281
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                                                                                                                                                                                                                                                                                                  Sequence 281, Application US/09791537
GENERAL INFORMATION:
APPLICANT: Bionomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Danzer, Joseph
                                                           Matches
                                                                                                                                                                             SOFTWARE: PatentIn version 3.0 SEQ ID NO 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local :
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Best Local 9
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Best Local (
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FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
                                                                                                                                                                                                           FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
                                                                                                                                                                                                                                                               APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY ME
TITLE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: JP 09-275302 PRIOR FILING DATE: 1997-09-22
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                                                                                                                                               LENGTH: 380
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                          Local Similarity hes '7; Conserv
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181 WQSAFTK 187
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                            1 WQSAFTK 7
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                                                        Score 40; DB Pred. No. 37; O; Mismatches
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O; Mismatches
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US-10-091-442-34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21
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TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver.
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MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
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                                                 OR APPLICATION DATA:

APPLICATION NUMBER: US/09/140,719

FILING DATE: 08-AUG-1998

APPLICATION NUMBER: US 08/474,661

FILING DATE: 07-JUN-1995

APPLICATION NUMBER: US 08/091,028

FILING DATE: 14-JUL-1993

APPLICATION NUMBER: JP 4-212305
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STATE: Virginia
                                                                                                                                                                                                                  CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                      APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: United States ZIP: 22313-1404
                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: P.O. Box 1404
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YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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BER: JP 6-067339
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PCT-US01-08631-33136
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                                SOFTWARE: Custom
SEQ ID NO 33136
LENGTH: 306
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                                                                                                                                                                      APPLICANT: Hyseq, Inc
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
FILE REFERENCE: 21272-049
CURRENT APPLICATION NUMBER: PCT/US01/08631
CURRENT FILING DATE: 2001-03-30
                                                                                  PRIOR APPLICATION NUMBER: 09/649,167
PRIOR FILING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 60736
                                                                                                                                       PRIOR APPLICATION NUMBER: 09/540,217 PRIOR FILING DATE: 2000-03-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/110,030 CURRENT FILING DATE: 2002-04-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: FastSEQ for Windows Version 4.0
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TYPE: PRT
ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 34:
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181 WQSAFTK 187
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; OTHER INFORMATION: Xaa - X or * as defined in Table 2
PCT-US01-08631-33136
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                                                                                                                                                                                                                                                                                                                                                       US-09-508-997A-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; ORGANISM: Homo sapiens PCT-US01-08631-41856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCT-US01-08631-41856
                                                                                                                 US-09-508-997A-6
                                                                                                                                                                                                                                                                    Sequence 6, Application US/USSUUSSII
GENERAL INFORMATION:
APPLICANT: MIXATA, Toshio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 41856, Application PC/TUS0108631
GENERAL INFORMATION:
APPLICANT: Hyseq, Inc
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES
FILE REFERENCE: 21272-049
CURRENT APPLICATION NUMBER: PCT/US01/08631
CURRENT FILING DATE: 2001-03-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 60736
SOFTWARE: CUSTOM
SEQ ID NO 41856
LENGTH: 323
                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
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                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/508,997A CURRENT FILING DATE: 2000-06-27
                                                                                                                                                                                                     PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: JP 09-275302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 09/649,167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 09/540,217 PRIOR FILING DATE: 2000-03-31
                                                                                                                             LENGTH: 368
TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
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169 WKSAFTK 175
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                                                     Score 36; DB 19;
Pred. No. 2.2e+02;
1; Mismatches 0
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Pred. No. 1.9e+02;
0; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/936,883A CURRENT FILING DATE: 2001-12-21 PRIOR APPLICATION NUMBER: JP 199-75305 PRIOR FILING DATE: 199-03-19 PRIOR APPLICATION NUMBER: JP 1999-306623 PRIOR FILING DATE: 1999-10-28 PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-936-883A-21
                                                                                                                                 Sequence 4, Application US/09508997A
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6, Application US/10110030 GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 21, Application US/09936883A GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 6
LENGTH: 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 21
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TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
NUMBER OF SPORTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use TITLE OF INVENTION: Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/10/110,030 CURRENT FILING DATE: 2002-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: SHIM015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: F2-101DP1PCT
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TYPE: PRT
ORGANISM: Mus musculus
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ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                    Local Similarity
nes 6; Conserv
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    Mismatches

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Result No. Title: Perfect score: Database Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB Maximum DB Scoring table: Sequence: Run on: OM protein · protein search, using sw model Total number of hits satisfying chosen parameters: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. Score seq length: 0
seq length: 2000000000 Pending\_Patents\_AA\_New:\*

1: /cgn2\_6/ptcodata/1/paa/PCT\_NEW\_COMB.pep1:\*

2: /cgn2\_6/ptcodata/1/paa/PCT\_NEW\_COMB.pep4:\*

3: /cgn2\_6/ptcodata/1/paa/US06\_NEW\_COMB.pep1:\*

4: /cgn2\_6/ptcodata/1/paa/US07\_NEW\_COMB.pep4:\*

5: /cgn2\_6/ptcodata/1/paa/US07\_NEW\_COMB.pep4:\*

6: /cgn2\_6/ptcodata/1/paa/US07\_NEW\_COMB.pep4:\*

7: /cgn2\_6/ptcodata/1/paa/US08\_NEW\_COMB.pep4:\*

9: /cgn2\_6/ptcodata/1/paa/US08\_NEW\_COMB.pep4:\*

9: /cgn2\_6/ptcodata/1/paa/US08\_NEW\_COMB.pep4:\*

10: /cgn2\_6/ptcodata/1/paa/US09\_NEW\_COMB.pep4:\*

11: /cgn2\_6/ptcodata/1/paa/US09\_NEW\_COMB.pep4:\*

12: /cgn2\_6/ptcodata/1/paa/US10\_NEW\_COMB.pep4:\*

13: /cgn2\_6/ptcodata/1/paa/US10\_NEW\_COMB.pep4:\*

14: /cgn2\_6/ptcodata/1/paa/US09\_NEW\_COMB.pep4:\* July 11, 2003, 11:55:27; Search time 6.57796 Seconds (without alignments) 280.699 Million cell updates/sec BLOSUM62 Gapop 10.0 , Gapext 0.5 Match Query 1229476 seqs, 263775074 residues 6 100.0 1100.0 1100.0 100.0 90.0 90.0 85.0 85.0 80.0 80.0 80.0 80.0 80.0 US-10-091-442-2 WQSAFTK 7 GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd Length 380 380 380 380 380 380 368 368 1717 72 US-09:936-883C-2
US-10-126-052A-263
US-60-443-566-3006
US-60-445-444-4692
US-60-465-241-4692
US-09-936-883C-21
US-09-936-883C-21
US-09-958-359-20
US-10-424-599-172361
US-10-369-493-1216
US-10-369-493-1216
US-10-369-493-1273-57
US-10-273-573-5500
US-10-289-762-500
US-10-289-762-500
US-09-949-016-6650
US-09-949-016-6650
US-09-218-140-6230 SUMMARIES Description Sequence 2, Appli Sequence 263, App Sequence 4692, Ap Sequence 21, Appl Sequence 21, Appl Sequence 29, Appl Sequence 19, Appl Sequence 173524, Sequence 173524, Sequence 17252, A Sequence 7752, A Sequence 7752, A Sequence 5, Appl Sequence 500, App Sequence 9504, Ap Sequence 9504, Ap Sequence 9504, Ap Sequence 6230, Ap

| 5                   | 4                    | ΰ                   | 12                  | 11                   | 0                    | 39                   | 38                   | 37                | 36               | 5                 | 4                   | 33                   | 32                | 31                   | 30                 | 29                  | 28                  | 27                 | 8                    | 25                   | 24                   | 23   | 22                  | 21                  | 20                   |
|---------------------|----------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|-------------------|------------------|-------------------|---------------------|----------------------|-------------------|----------------------|--------------------|---------------------|---------------------|--------------------|----------------------|----------------------|----------------------|------|---------------------|---------------------|----------------------|
| 30                  | 30                   | 30                  | 30                  | 30                   | 30                   | 30                   | 31                   | 31                | 31               | 31                | 31                  | 31                   | 31                | 31                   | 31                 | 31                  | 31                  | 31                 | 31                   | 31                   | 31                   | 32   | 32                  | 32                  | 32                   |
| 75.0                | 75.0                 | 75.0                | 75.0                |                      | 75.0                 | 75.0                 | 77.5                 | 77.5              | 77.5             | 77.5              | 77.5                | 77.5                 | 77.5              | 77.5                 | 77.5               | 77.5                | 77.5                | 77.5               | 77.5                 | 77.5                 | 77.5                 | 80.0 | 80.0                | 80.0                | 80.0                 |
| 130                 | 130                  | 91                  | 88                  | 80                   | 75                   | 33                   | 1108                 | 978               | 978              | 733               | 514                 | 282                  | 264               | 260                  | 242                | 242                 | 221                 | 221                | 127                  | 94                   | 93                   | 981  | 981                 | 981                 | 959                  |
| 10                  | N                    | 10                  | 10                  | 12                   | 12                   | 12                   | 12                   | 12                | 10               | 12                | 12                  | 12                   | 12                | 12                   | 14                 | 14                  | 12                  | 12                 | 12                   | 12                   | 12                   | 12   | 10                  | 10                  | 12                   |
| US-09-978-825-15086 | PCT-US02-32727-15086 | US-09-864-408A-4728 | US-09-864-408A-2936 | US-10-424-599-187032 | US-10-424-599-204603 | US-10-424-599-223477 | US-10-282-122A-60476 | US-10-312-273-35  | US-09-841-260-65 | US-10-289-762-791 | US-10-369-493-21618 | US-10-437-963-125689 | US-10-289-762-486 | US-10-437-963-125687 | US-60-470-166-1193 | US-60-452-680-21389 | US-10-219-382A-1236 | US-10-219-382-1236 | US-10-424-599-257209 | us-10-424-599-195376 | US-10-424-599-145438 | -087 | US-09-949-016-11648 | US-09-949-016-11647 | US-10-219-051B-11182 |
| Sequence 15086, A   |                      | Sequence 4728, Ap   |                     | Sequence 187032,     | Sequence 204603,     | Sequence 223477,     | 6047                 | Sequence 35, Appl |                  | 791,              | Sequence 21618, A   | 12568                |                   | 125687               | Sequence 1193, Ap  | ۰,                  |                     | 1236,              |                      | Sequence 195376,     | 1454                 |      | Sequence 11648, A   | Sequence 11647, A   | Sequence 11182, A    |

#### ALIGNMENTS

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; SEQ ID NO 2
; LENGTH: 380
; TYPE: PRT
; ORCANISM: Homo sapiens
US-09-936-883C-2
RESULT 2
US-10-126-052A-263
; Sequence 263, Application US/10126052A
; GENERAL INFORMATION:
; APPLICANT: Aziz, Natasha
; APPLICANT: Murray, Richard
; APPLICANT: Eos Biotechnology, Inc.
; TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
; TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
; FILE REFERENCE: 018501-001530US
; CURRENT APPLICATION NUMBER: US/10/126,052A
                                                                                                                                                                                                                                                                                                                                                            Вb
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US-09-936-883C-2
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Best Local
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TITLE OF INVENTION: A Method for Detecting Megsin Protein and I
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DPLPCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR FILING DATE: 1999-10-28
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NUMBER OF SEQ ID NOS: 21
Onther Prior Parentin Ver. 2.0
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                                                                                                                                                                                                                                                                                                                                                            181 WQSAFTK 187
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100.0%; Pred. No. 6.3;
tive 0; Mismatches
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CURRENT FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: US 60/284,770

FILING DATE: 2001-04-18

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US-60-455-444-4692; Sequence 4692; Application US/60455444; GENERAL INFORMATION:
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: SEQ ID NO 3006

: LENGTH: 380

: TYPE: PRT

: ORGANISM: Homo sapiens

US-60-443-566-3006
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; ORGANISM: Homo sapiens
US-10-126-052A-263
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PRIOR FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 60/339,245
PRIOR FILING DATE: 2001-11-09
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR FILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2002-04-12
NUMBER DO SECT 10 NOS. 604
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Best Local
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                                        SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                  CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
                                                                                                                        APPLICANT: BEGOVICH, AND TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001447
                                                            NUMBER OF SEQ ID NOS: 50986
                                                                                                                                                                                             APPLICANT: CARGILL, Michele APPLICANT: BEGOVICH, Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/60/443,566 CURRENT FILING DATE: 2003-01-30
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Q ID NO 4692
LENGTH: 380
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RESULT 7

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; ORGANISM: Homo sapiens
US-60-455-444-4692
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US-60-465-241-4692
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LENGTH: 380
TYPE: PRT
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LENGTH: 368
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APPLICANT: MIYATA, Toshio
                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: A Method for Detecting Megsin Protein and TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                 PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
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                                                                                                                                               LENGTH: 368
TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: CL001468
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                                                                                 Local
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Local Similarity 100.0%;
local Similarity 100.0%;
les 7; Conservative C
169 WKSAFTK 175
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181 WQSAFTK 187
                             1 WQSAFTK 7
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                                                                 Conservative
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                                                                                 Score 36; DB Pred. No. 39;
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Pred. No. 6.3;
Mismatches 0;
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                                                                 Mismatches
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                                                                                                 10; Length 368;
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RESULT 9
US-10-424-599-183524
; Sequence 183524, Application US/10424599
; GENERAL INFORMATION:
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; OTHER INFORMATION: Description of Unknown Organism: Grub
US-09-958-359-20
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US-09-958-359-20
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APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and
TITLE OF INVENTION: Thereof
TITLE OF INVENTION: Thereof
TILE REFERENCE: F2-101DP1CT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20, Application US/09958359
GENERAL INFORMATION:
APPLICANT: SUGEN, INC.
TITLE OF INVENTION: TYROSINE KINASE SUBSTRATE
FILE REFERENCE: 038602/0102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 20
LENGTH: 1717
TYPE: PRT
ORGANISM: Unknown Organism
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LENGTH: 380
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CURRENT FILING DATE: 2002-02-05
NUMBER OF SEQ ID NOS: 55
                                                                                 APPLICANT: La Rosa Thomas J
APPLICANT: Kovalic David K
APPLICANT: Zhou Yihua
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PRIOR ETLING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
                                                                APPLICANT:
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ORGANISM: Rattus norvegicus
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nes 6; Conserv
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Local Similarity 85.7%;
les 6; Conservative
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Pred. No. 3.8e+02;
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Pred. No. 40;
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Best Local Similarity
"hes 5; Conserv
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US-10-424-599-172361
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SEQ ID NO 172361
LENGTH: 72
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Best Local Similarity
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SEQ ID NO 183524
LENGTH: 60
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                                                                 TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES FILE REFERENCE: 38-10(52052)B CURRENT APPLICATION NUMBER: US/10/369,493 CURRENT FILING DATE: 2003-02-28 CURRENT FILING DATE: 2003-02-28
PRIOR APPLICATION NUMBER: US 60/360,039
PRIOR FILING DATE: 2002-02-21
NUMBER OF SEQ ID NOS: 47374
SEQ ID NO 12166
                                                                                                                                                        APPLICANT: Cao, Yongwei
APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Goldman, Barry S.
APPLICANT: Chen, Xianfeng
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CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
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TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
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APPLICANT: Kovalic David
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CURRENT FILING DATE: 2003-04-28
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ORGANISM: Glycine max
FEATURE:
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TYPE: PRT
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LOCATION: (1)..(60)
OTHER INFORMATION: unsure at all Xaa locations
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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71.4%;
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Pred. No.
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RESULT 13
US-10-282-122A-77952
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US-10-369-493-12166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens
US-60-452-680-15528
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Best Local
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Best Local
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APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: CARGILL, Michele
APPLICANT: GRUPE, Andrew
TITLE OF INVENTION: GENEFIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: ALZHEIMER'S DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001450
                                                                                                                                        TITLE OF INVENTION: Identification of Essential Genes FILE REFERENCE: ELITRA.034A CURRENT APPLICATION NUMBER: US/10/282,122A CURRENT FILING DATE: 2003-02-20
                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                 equence 77952, appl
SENERAL INFORMATION
                                                                             PRIOR APPLICATION NUMBER: 60/206,848 PRIOR FILING DATE: 2000-05-23
                                                                                                            PRIOR APPLICATION NUMBER: 60/191,078 PRIOR FILING DATE: 2000-03-21
                                                                                                                                                                                                            APPLICANT:
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TYPE: PRT
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              APPLICATION NUMBER: 60/207,727
FILING DATE: 2000-05-26
APPLICATION NUMBER: 60/230,335
FILING DATE: 2000-09-06
APPLICATION NUMBER: 60/230,347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460 WSSSFTK 466
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Zyskind, Judith
                                                                                                                                                                                                                                                                                                                                              Zamudio, Cario
Malone, Cheryl
                                                                                                                                                                                                                       Yamamoto, Robert Forsyth, R.
                                                                                                                                                                                                                                                                       Wall, Daniel
Trawick, John
                                                                                                                                                                                                                                                                                                                                      Haselbeck, Robert
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Pred. No.
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Pred. No. 4.3e+02;
1; Mismatches 1
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2.5e+02;
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                                                                                                                                      ; ORGANISM: Chlamydia pneumoniae US-10-312-273-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
US-10-312-273-5
                                                                                                                                                                      SEQ ID NO 5
LENGTH: 938
TYPE: PRT
                                                                   Matches
                                                                                      Best
                                                                                                   Query Match
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SEQ ID NO 77952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/312,273 CURRENT FILING DATE: 2002-12-20
                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 664
SOFTWARE: CONTINUE OF SEQ ID NOS: 664
                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2000-0 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 2000-07-11
PRIOR APPLICATION NUMBER: 0017983.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 0016363.4 PRIOR FILING DATE: 2000-07-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/267,636
PRIOR FILING DATE: 2001-02-09
PRIOR APPLICATION NUMBER: 60/269,308
PRIOR FILING DATE: 2001-02-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 2000-10-23
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/257,931
                                                                                                                                                                                                                     SOFTWARE: SeqWin99, version 1.02
                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 2000-08-07
                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2000-07-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 2000-11-10
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TYPE: PRT
                                                                                   Local
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220 WQSAYT 225
                                 1 WQSAFT 6
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                                                                   Similarity 5; Conserv
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                                                                   Conservative
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83.3%;
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                                                                                 Score 32; DB 12;
Pred. No. 5.6e+02
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                                                                                    6e+02;
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RESULT 15 US-10-289-762-500

Sequence 500, Application US/10289762 GENERAL INFORMATION:

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THILE OF INVENTION: Character and uses thereof, In particular for the disposis, Fragments THILE FOR INVENTION: A tractment of infection

FILE REFERENCE: 9710-003-99

FILE REFERENCE: 9710-003-99

FIRE PRINCIPATION AND THE ARMYLIA PROMOTION AND THE REFERENCE: 9710-003-99

FIRE PRINCIPATION WOMEN TO THE ARMYLIA PROMOTION AND THE REFERENCE: 9710-003-99

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Perfect score:
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                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
     100.0
100.0
100.0
100.0
                                                                                                                                                                      Match
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1: /cgn2_6/ptodata/1/paa/PCTUS_COMB.pep:*
2: /cgn2_6/ptodata/1/paa/US06_COMB.pep:*
3: /cgn2_6/ptodata/1/paa/US07_COMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                   : /cgn2_6/ptodata/1/paa/US082_COMB.pep: *
/cgn2_6/ptodata/1/paa/US083_COMB.pep: *
/cgn2_6/ptodata/1/paa/US084_COMB.pep: *
/cgn2_6/ptodata/1/paa/US084_COMB.pep: *
/cgn2_6/ptodata/1/paa/US085_COMB.pep: *
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/cgn2_6/ptodata/1/paa/US089_COMB.pep: *
/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
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/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
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/cgn2_6/ptodata/1/paa/US099_COMB.pep: *
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5 US-09-140-719-3
4 US-10-091-442-3
7 US-08-091-718-3839
US-08-091-028A-34
5 US-09-140-719-34
9 US-09-508-997A-2
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| 27<br>27<br>27                                               | 26122                                                                    | 22<br>24<br>24<br>21<br>25<br>16                                                                                               | 4<br>9<br>11<br>20<br>21<br>21                                                                                                                                      | 25<br>19<br>23<br>25<br>21<br>21<br>27<br>27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 21<br>23<br>24<br>25<br>19<br>23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 0-219-999-62<br>0-324-109-28<br>0-219-999-32<br>0-324-109-18 | -09-758-438-934<br>-10-212-760-934<br>-09-758-458-304<br>-10-212-215-304 | 9-823-187-29<br>9-823-187-30<br>0-037-417-65<br>0-094-944-12<br>9-760-492-10<br>0-162-749-10<br>9-252-9911-2                   | 08-259-2<br>08-259-2<br>08-258-147A-<br>08-731-266-<br>09-653-464E-<br>09-791-537-<br>09-791-537-                                                                   | -10-110-030-6<br>-09-508-997A-<br>-09-936-883A-<br>-10-110-030-4<br>-09-791-537-1<br>-09-791-537-8<br>-60-389-987-1<br>-60-412-418-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | S-09-791-537-<br>S-09-936-883A<br>S-10-091-442-<br>S-10-110-030-<br>S-08-091-028-3<br>-08-091-028-3<br>S-09-508-997A<br>S-09-936-883A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 28371<br>28371<br>32900<br>18095                             | 934,                                                                     | 29, p<br>30, p<br>65, p<br>112, p<br>106,<br>106,<br>26823                                                                     | Sequence 2, Appli<br>Sequence 2, Appli<br>Sequence 2, Appli<br>Sequence 9, Appli<br>Sequence 9, Appli<br>Sequence 33386, A<br>Sequence 76123, A<br>Sequence 121576, | Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequence (Sequen | equence 281, Applequence 2, Applequence 34, Applequence 2, Appliquence 3, Appliquence 3, Appliquence 3, Appliquence 6, Applequence 6, Applequence 6, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequence 21, Applequen |

# ALIGNMENTS

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US-09-140-719-3
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                 CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                  APPLICANT: MIURA, Kenju
APPLICANT: ISHIDA, Nobuhiro
APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, Kozo
APPLICANT: YAMAICHI, Kozo
APPLICANT: YAMAGUCHI, Nozomi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
  APPLICATION NUMBER:
                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                         E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                               TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IWASA, Fuyuki
US/09/140,719
                                        Version #1.30
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Sequence 34, Appl Sequence 34, Appl Sequence 2, Appli

Sequence 3, Appli Sequence 3, Appli Sequence 3839, Ap

PRIOR APPLICATION DATA:

08-AUG-1998

FILING DATE: APPLICATION NUMBER: CLASSIFICATION:

07-JUN-1995

US 08/474,661

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RESULT 2
US-10-091-442-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3, Application US/10091442 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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REFERENCE/DOCKET NUMBER: 0015
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 19 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-WAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAIN, MALCOLM K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
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                                                                                                                                      COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION UNMBER: US/10/091,442

FILING DATE: 07-Mar-2002

CLASSITICATION: - TREASURE

CLASSITICATION: - TREASURE

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CLASS
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YAMAGUCHI, NOZOMİ
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 VERVDFTNHLEDTRRNINK 19
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STATE: Virginia
COUNTRY: United States
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                                                                                                              CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 22313-1404
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linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JP 4-212305
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RESULT 4
US-08-091-028A-34
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                                                                                                                                                                                                           ; NAME/KEY: VARIANT
; LOCATION: (1) ...(41)
; OTHER INFORMATION: Xaa - Any Amino Acid
US-60-196-718-3839
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US-60-196-718-3839
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                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/60/196,718
CURRENT FILING DATE: 2000-04-13
NUMBER OF SEQ ID NOS: 7494
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3839, Appli GENERAL INFORMATION: APPLICANT: Bonazzi
                                                                                                                                                           Query Match
Best Local :
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TITLE OF INVENTION:
TITLE OF INVENTION:
FILE REFERENCE: CL00
                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                           LENGTH: 41
TYPE: PRT
ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAD, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-2.
TELEPHONE: (703) 836-6620
TELEPHONE: (703) 836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity es 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: peptid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                       15 VERVDFTNHLEDTRRNINK 33
                                                                                                                                           l Similarity
19; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 19 amino acids TYPE: amino acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-UUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bonazzi, Vivien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/60196718
                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                   for Windows Version 4.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ISOLATED HUMAN SECRETED PROTEINS, AND NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                   USES THEREOF
                                                                                                                                         100.0%; Score 100; DB 27; 100.0%; Pred. No. 5.7e-09; ive 0; Mismatches 0;
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Pred. No. 2.2e-09;
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Sequence 34, Application US/08091028A GENERAL INFORMATION:
APPLICANT: TSUJIMOTO, Masafumi

APPLICANT: APPLICANT:

IWASA, Fuyuki TSURUOKA, Nobuo

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RESULT 5
US-09-140-719-34
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Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                            Sequence 34, Applicat GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: Linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (703) 836-6620 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                    CORRESPONDENCE ADDRESS
                                                                                                                                                          APPLICANT:
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APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
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APPLICATION NUMBER: U5/08/091,028A
FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                    TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                        APPLICANT:
                                                                                                        APPLICANT:
                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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STATE: Virginia
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                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                 126 VERVDFTNHLEDTRRNINK 144
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SEE: Burns, Doane, Swecker & Mathis P.O. Box 1404
Alexandria
                                                                                                                                                                                                                                                                           Application US/09140719
                                                                                                      YAMAGUCHI, Nozomi
                                                                                                                                                    MIURA, Kenju
ISHIDA, Nobuhiro
                                                                                                                                                                                     TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                    KURIHARA, Tatsuya
YAMAICHI, Kozo
                                                                                                                                                                                                                                            TSUJIMOTO, Masafumi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 380;
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                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/09508997.
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
                                                                                                                                                       SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 380
TYPE: PRT
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Best Local
                                                     Matches
                                                                    Query Match
Best Local :
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                                                                                                                                                                                                                                                                            CURRENT FILING DATE: 2000-06-27
                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: JP 09-275302 PRIOR FILING DATE: 1997-09-22
                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 44
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                                                                                                                                        ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 08-AUG-19
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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APPLICATION NUMBER:
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Rolean "'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 39,300 REFERENCE/DOCKET NUMBER: 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126 VERVDFTNHLEDTRRNINK 144
                                                     19;
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1 VERVDFTNHLEDTRRNINK 19
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                                                                      Similarity
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                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; Score 100; DB 15;
100.0%; Pred. No. 9.1e-08;
tive 0; Mismatches 0;
                                                    100.0%; Score 100; DB 19; 100.0%; Pred. No. 9.1e-08; tive 0; Mismatches 0;
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                                                                                    Length 380;
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RESULT 9
US-10-091-442-34
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US-09-791-537-281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-03-19 PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/09936883A GENERAL INFORMATION:
                                                                                                                          Sequence 34, Application US/10091442 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
EILE REFERENCE: F2-101DPIPCT
CURRENT APPLICATION NUMBER: US/09/936,883A
CURRENT FILING DATE: 2001-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Debe, Derek
APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBE
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210

FILE REFERENCE: 261/210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bionomix, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 38
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 380
                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watch 100.0%; Score 100; DB 21; Local Similarity 100.0%; Pred. No. 9.1e-08; nes 19; Conservative 0; Mismatches 0;
                                                                                                     APPLICANT: TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                              126 VERVDFTNHLEDTRRNINK 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126 VERVDFTNHLEDTRRNINK 144
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                                                                                                                                                                                                                                                                                                                           Conservative
MIURA, Kenju
ISHIDA, Nobuhiro
                                     IWASA, Fuyuki
TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                             100.0%;
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                                                                                                                                                                                                                                                                                                                                             Score 100;
Pred. No. 9.
                                                                                                                                                                                                                                                                                                                           Mismatches
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.1e-08;
s 0;
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US-10-110-030-2
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                                                                                                                                                                                                                   Sequence 2, Application US/10110030 GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
                    NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 19; Conserv
                                                                          CURRENT APPLICATION NUMBER: US/10/110,030
CURRENT FILING DATE: 2002-04-03
PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
                                                                                                                                                             FILE REFERENCE: SHIM015
                                                                                                                                                                                TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown> PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                              126 VERVDFTNHLEDTRRNINK 144
                                                                                                                                                                                                                                                                                                                                                                                                     1 VERVDFTNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-UUL-193
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-UUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (703)
TELEFAX: (703) 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: JP 6 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: United States
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF SEQUENCES:
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YAMAICHI, Kozo
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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Indels Length 380;

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; TYPE: PRT
; ORGANISM: HO
US-10-110-030-2
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US-08-091-028-3
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Best Local S
Matches 16
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/(
FILING DATE: 14-JUL-199:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                             TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-6620
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
FILTUM TAMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

COMPUTER: PC-DOS/MS-DOS

COPTMANDE: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                      FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Crane-Feury, Sharon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                           TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Alexandria
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                                                                                                                                                 STRANDEDNESS: si
                                                                                                                                                                                                                                                                                                      NAME: Crane-Feury, Sharon E REGISTRATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
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VERVDFTNHLEDTRRNINK 19
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George Mason Bldg., Washington & Prince Sts
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NAKAZATO, Hiroshi
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YAMAICHI, KOZO
                                                           Conservative
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                                                                                                                                    peptide
                                                                                                                                                               single
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                                                                          82.0%;
84.2%;
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                                                                                                                                                                                                                                                                                                   36,113
                                                                        Score 82;
Pred. No.
                                                           Mismatches
                                                                          DB 4;
2.3e-06;
                                                                                      Length 19
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                                                                   Matches
                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/091,028/
APPLICATION NUMBER: US/08/091,028/
FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
CLASSIFICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: REA, TERESA STANEY
NAME: REA, TERESA STANEY
                                                                                                                                                                                                                                                  TELEFAX: (703) 836-6620 INFORMATION FOR SEQ ID NO:
                                                                                                                                      ID NO:
ID NO:
IT NO:
IT NO:
IT NO:
IT NO:
IT PE: amino acid
STRANDEDNESS: $1'
TOPOLOGY:
IT OLECULE ""
N91"
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 00:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: United States ZIP: 22313-1404
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STATE: Virginia
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16;
                                                                                  Similarity
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TSURUOKA, Nobuo
NAKAZATO, Hiroshi
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KURIHARA, Tatsuya
YAMAICHI, Kozo
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                                                                   Conservative
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                                                                                  82.0%;
84.2%;
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                                                                                  Score 82;
Pred. No.
                                                                   Mismatches
                                                                                  2.3e-06;
                                                                                                     DB 4;
                                                                                                  Length 19;
                                                                   Indels
                                                                   Gaps
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RESULT 13 US-09-508-997A-6

0

Sequence 6, Application US/09508997A
GENERAL INFORMATION:
APPLICANT: MIYATA, TOShio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICANTION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27

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TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DPIPCT
CURRENT APPLICATION NUMBER: US/09/936,883A
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 21
LENGTH: 368
TYPE: PRT
ORGANISM: Mus musculus
US-09-936-883A-21
                                                                                                                                                                  Sequence 6, Application US/10110030

GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE
TITLE OF INVENTION: NEPHRITIS
FILE REFERENCE: SHIM015
CURRENT APPLICATION NUMBER: US/10/110,030
CURRENT FILING DATE: 2002-04-03
PRIOR APPLICATION NUMBER: 11/285736
PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                           ; SEQ ID NO 6
; LENGTH: 368
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-110-030-6
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US-10-110-030-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-936-883A-21
   Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 71.0
Best Local Similarity 73.7
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 21, Application US/09936883A GENERAL INFORMATION:
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Best Local Similarity 73.7%;
Matches 14; Conservative
                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Ver. 2.0
EQ ID NO 6
LENGTH: 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: JP 09-275302 PRIOR FILING DATE: 1997-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: MIYATA, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 44
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114 VERVDFTNDVQDTRFKINK 132
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   Similarity 73.7
14; Conservative
                 71.0%;
73.7%;
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73.7%;
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2; Mismatches
Score 71; DB 25; Length 368; Pred. No. 0.0065; 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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Pred. No. 0.0065;
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).0065;
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Qy 1 VERVDFTNHLEDTRRNINK 19
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|| 114 VERVDFTNDVQDTRFKINK 132
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Search completed: July 11, 2003, 12:27:30 Job time: 61.8046 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run on:
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                               Pending_Patents_AA_New:*

1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

2: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

3: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

4: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

5: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep4:*

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9: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

9: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

10: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

11: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

12: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

13: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

14: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*
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Gapop 10.0 , Gapext 0.5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                July 11, 2003, 11:55:27; Search time 17.8545 Seconds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (without alignments)
280.699 Million cell updates/sec
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#### SUMMARIES

| Result | Score | Query<br>Match | Length | DB | ID .                 | Description       |
|--------|-------|----------------|--------|----|----------------------|-------------------|
| 1      | 100   | 100.0          | 380    | 10 | US-09-936-883C-2     | Sequence 2, Appli |
| N      | 100   | 100.0          | 380    | 12 | US-10-126-052A-263   | 263               |
| ω      | 100   | 100.0          | 380    | 14 | US-60-443-566-3006   | 3006,             |
| 4      | 100   | 100.0          | 380    | 14 | US-60-455-444-4692   |                   |
| ហ      | 100   | 100.0          | 380    | 14 |                      |                   |
| 0      | 71    | 71.0           | 368    | 10 | US-09-936-883C-21    | Sequence 21, Appl |
| 7      | 83    | 68.0           | 380    | 10 | US-09-936-883C-19    | Sequence 19, Appl |
| 8      | 50    | 50.0           | 328    | 14 | US-60-443-566-4373   | 4373              |
| 9      | 50    | 50.0           | 328    | 14 | US-60-455-444-7455   | Sequence 7455, Ap |
| 10     | 50    | 50.0           | 328    | 14 | US-60-465-241-7455   | Sequence 7455, Ap |
| 11     | 50    | 50.0           | 390    | N  | PCT-US02-07215B-12   | Sequence 12, Appl |
| 12     | 50    | 50.0           | 390    | N  | PCT-US03-17409-175   | Sequence 175, App |
| 13     | 50    | 50.0           | 390    | 14 | US-60-448-285-5      | Sequence 5, Appli |
| 14     | 50    | 50.0           | 410    | 10 | US-09-724-676-57391  | Sequence 57391, A |
| 15     | 50    | 50.0           | 410    | 10 | US-09-724-676A-57391 | Sequence 57391, A |
| 16     | 49    | 49.0           | 226    | 12 | US-10-366-683-26823  | Sequence 26823, A |
| 17     | 49    | 49.0           | 226    | 12 | US-10-419-128-26823  | Sequence 26823, A |
| 18     | 49    | 49.0           | 1169   | 12 | US-10-282-122A-47218 | Sequence 47218, A |
| 19     | 48.5  | 48.5           | 235    | 10 | US-09-949-016-11482  | Sequence 11482, A |
|        |       |                |        |    |                      |                   |

| Sequence 149      | US-60-449-629-149     | 14  | 375  | 46.0 | 46 | <b>4</b> 5 |
|-------------------|-----------------------|-----|------|------|----|------------|
| Sequence 166,     | SD                    | 14  | 375  | 46.0 | 46 | 44         |
| Sequence 4, Appli | US-10-376-564-        | 12  | 375  | 46.0 | 46 | 43         |
| Sequence 3, Appli | US                    | 12  | 375  | 46.0 | 46 | 42         |
| Sequence 36,      | US-1                  | 12  | 375  |      | 46 | 41         |
| Sequence 189, App | PCT-USO               | N   | 375  | 46.0 | 46 | 40         |
| Sequence 93, Appl | PCT-US02-19592-93     | N   | 375  |      | 46 | 39         |
| Sequence 5239     | .US-60-465-241-5239   | 14  | 258  | 46.0 | 46 | 38         |
| Sequence 5239     | US-60-455-444-5239    | 14  | 258  |      | 46 | 37         |
| Sequence 4033     | US-60-443-566-4033    | 14  | 258  |      | 46 | 36         |
| Sequence 5240     | US-60-465-241-5240    | 14  | 215  |      | 46 | 35         |
| Sequence 5240     | US-60-455-444-5240    | 14  | 215  |      | 46 | 34         |
| Sequence 4034     | US-60-443-566-4034    | 14  | 215  |      | 46 | ω<br>ω     |
| Sequence 1165     | ) US-09-949-016-11650 | 10  | 1043 |      | 47 | 32         |
| Sequence 10802    | ) US-09-949-016-10802 | 10  | 507  |      | 47 | <u>3</u> 1 |
| Sequence 18,      | US-10-373-877-18      | 12  | 506  |      | 47 | 30         |
| Sequence 15050    | -Sn                   | 14  | 504  |      | 47 | 29         |
|                   | US-60-453-050-15050   | 14  | 504  |      | 47 | 28         |
| Sequence 15050    | US-60-453-135-15050   | 14  | 504  | 47.0 | 47 | 27         |
| Sequence 24158    | US-60-452-680-24158   | 14  | 504  |      | 47 | 26         |
| Sequence 14338    | US-10-219-051B-14338  | 12  | 504  | 47.0 | 47 | 25         |
| Sequence 6, App   | PCT-US02-20350-6      | N   | 504  |      | 47 | 24         |
| Sequence 14336    | US-10-219-051B-14336  | 12  | 503  | 47.0 | 47 | 23         |
| Sequence 4, App   | PCT-US02-20350-4      | N   | 503  |      | 47 | 22         |
| Sequence 45472,   | US-10-425-114-45472   | 12  | 689  |      | 48 | 21         |
| sequence obsas    | US-10-425-114-68385   | 7.7 | 481  | 40.0 | 40 | 20         |

## ALIGNMENTS

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TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR FILING DATE: 1999-10-28
NUMBER OF ESQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                               RESULT 2
US-10-126-052A-263
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-936-883C-2
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US-09-936-883C-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%; Score 100; DB 10; Best Local Similarity 100.0%; Pred. No. 7.2e-08; Matches 19; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/09936883C GENERAL INFORMATION:
                                                                                                                                                                                           Sequence 263, Application US/10126052A GENERAL INFORMATION:
APPLICANT: Aziz, Natasha
APPLICANT: Murray, Richard
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
FILE REFERENCE: 018501-001530US
CURRENT APPLICATION NUMBER: US/10/126,052A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: MIYATA, Toshio
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PRIOR FILING DATE: 2001-04-18

CURRENT FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: US 60/284,770

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                                                                                                                                                                                                                                                                     US-60-455-444-4692
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US-60-443-566-3006
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US-10-126-052A-263
CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEO ID NOS: 50986
SOFTWARE: FastSEQ for Windows Version 4.0
SEO ID NO 4692
LENGTH: 380
                                                                                                                                                                                 Sequence 4692, Application US/60455444
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3006
LENGTH: 380
TYPE: PRT
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APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
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Best Local :
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SEQ ID NO 263
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                          TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF FILE REFERENCE: CL001455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETIFILE REFERENCE: CL001447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/60/443,566 CURRENT FILING DATE: 2003-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 60/290,492
PRIOR FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 60/339,245
PRIOR FILING DATE: 2001-11-09
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
19; Conserv
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19; Conserv
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100.0%; Pred. No. 7.2e-08;
tive 0; Mismatches 0;
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                                                                                                                                           DETECTION AND USES THEREOF
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RESULT 7

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CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOBTWARE: FRASTSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
TYPE: PRT
ORGANISM: Homo Sapiens
US-60-465-241-4692
                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOPTWARE: PatentIn Ver. 2.0
SEQ ID NO 21
LENGTH: 368
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; ORGANISM: Homo sapiens
US-60-455-444-4692
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 21, Application US/09936883C GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
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GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                                                          Matches
                                                                                            Query Match
Best Local :
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Best Local :
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Best Local :
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                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 199-75305
PRIOR FILING DATE: 1999-03-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: CL001468
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                                                                                                                                                                       TYPE: PRT
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
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114 VERVDFTNDVQDTRFKINK 132
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                 1 VERVDFTNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cn 100.0%; Score 100; DB 14; 1 Similarity 100.0%; Pred. No. 7.2e-08; 19; Conservative 0: Mismathham
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                                                                                            Similarity
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                                                                          Conservative
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                                                                                            Score 71; DB 10; Pred. No. 0.0034;
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                                                                        Mismatches
                                                                                                            Length 368;
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US-60-455-444-7455
; Sequence 7455, Application US/60455444
; Sequence 7175, Application US/60455444
; APPLICANT: CARGILL, Michele
; APPLICANT: BEGOVICH, Ann
; TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
; TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001455
; FILE REFERENCE: CL001455
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LOCATION: 51, 94
; OTHER INFORMATION: Xaa is unknown.
US-09-936-883C-19
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US-60-443-566-4373
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CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FBStSEQ for Windows Version 4.0
SEQ ID NO 4373
LENGTH: 328
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APPLICANT: MIYATA, Toshio
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: BEGOVICH, AND TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DET FILE REFERENCE: CL001447
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NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
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APPLICATION NUMBER: US/60/455,444
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Pred. No.
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US-60-465-241-7455
                                                                                    ; ORGANISM: Homo sapiens PCT-US02-07215B-12
                                                                                                                                                                                                                                                                                                                                       PCT-US02-07215B-12
                                                                                                                                           CURRENT APPLICATION NUMBER: PCT/US02/07215B
CURRENT FILING DATE: 2002-03-08
NUMBER OF SEQ ID NOS: 35
SOFTWARE: PatentIn version 3.1
SEQ ID NO 12
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LENGTH: 328
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 7455
                                          Query Match
Best Local 9
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APPLICANT: DuBose, Robert F
APPLICANT: Wiley, Steven R
TITLE OF INVENTION: HUMAN SERPIN POLYPEPTIDES
FILE REFERENCE: 3223-WO
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TYPE: PRT
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TYPE: PRT
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1 VERVDETNHLEDTRRNIN 18
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Similarity 55.6%;
                           Similarity 55.0
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                                             Pred.
                                                         Score 50;
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Pred. No. 7
                              Mismatches
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131 VESVDFANAPEESRKKIN

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APPLICANT: INCYTE CORPORATION
APPLICANT: RICKERT, Paula K.
APPLICANT: KRASNOW, Randi
TITLE OF INVENTION: DIAGNOSTIC MARKERS FOR LUNG CANCER
FILE REFERENCE: PA-0051 PCT
CURRENT APPLICATION NUMBER: PCT/US03/17409
CURRENT FILING DATE: 2003-06-02
PRIOR APPLICATION NUMBER: US 60/386,005
PRIOR FILING DATE: 2002-06-04
NUMBER OF SEQ ID NOS: 296
SOFTWARE: PERL PROGram
SEQ ID NO 175
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US-09-724-676-57391
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-60-448-285-5
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US-60-448-285-5
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; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No: 1451328CD1
PCT-US03-17409-175
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                                                                                                                                         Sequence 57391, Application US/09724676 GENERAL INFORMATION:
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SEQ ID NO 5
SOFTWARE: PatentIn version 3.2 SEQ ID NO 57391
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                             APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/60/448,285
CURRENT FILING DATE: 2003-02-19
NUMBER OF SEQ ID NOS: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: ASHTON-RICKARDT, PHILIP
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR THE INHIBITION OF
TITLE OF INVENTION: CATHERSINS
FILE REFERENCE: ARCD:390USP1
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TYPE: PRT
ORGANISM: Homo sapiens
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l Similarity 55.6%;
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Pred. No. 9
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                                                                                                                                                                                                                                                                                                                                                     DB 14;
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                                                                                                                                                                                                           ; NAME/KEY: misc_feature ; LOCATION: (8)..(8) ; LOCATION: (8)..(8) ; OTHER INFORMATION: Xaa can be any naturally occurring amino acid US-09-724-676A-57391
Search completed: July 11, Job time: 19.9545 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
US-09-724-676A-57391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: misc_feature ; LOCATION: (8)...(8) ; OTHER INFORMATION: Xaa can be any naturally occurring amino US-09-724-676-57391
                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Variants of alternative splicing FILE REFERENCE: 129181.4 Compugen CURRENT APPLICATION NUMBER: US/09/724,676A CURRENT FILING DATE: 2000-11-28 NUMBER OF SEQ ID NOS: 97222 SOFTWARE: PatentIn version 3.2 SEQ ID NO 57391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 57391, Appl
GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                         Matches
                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Compugen LTD
                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                  LENGTH: 410
TYPE: PRT
                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
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                                                                   151 VESVDFANAPEESRKKIN 168
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                                                                                                                                                        50.0%;
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                2003, 12:35:07
                                                                                                                                                        Score 50; [Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 50; DB 10; Length 410; Pred. No. 9.5;
                                                                                                                                         Mismatches
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                                                                                                                                                      DB 10; Length 410;
9.5;
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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               July 11, 2003, 11:54:32; Search time 53.5094 Seconds (without alignments) 204.833 Million cell updates/sec
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83
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                                                                                                                                                                                                            /cgn2_6/ptodata/1/paa/US086_COMB.pep:*
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/cgn2_6/ptodata/1/paa/US081
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                                                                                                                                                             /ptodata/1/paa/US096
/ptodata/1/paa/US097
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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|-------------------------------------------------------------------------------------------------------|--------------------|-----------------------------|
| 88888                                                                                                 | - :                | Score                       |
| 100.0                                                                                                 |                    | Query<br>Match Length DB ID |
| 17<br>118<br>380<br>380<br>380                                                                        |                    | Length                      |
| 24<br>27<br>15<br>19                                                                                  | 15                 | B                           |
| 4 US-10-091-442-4 7 US-60-188-162-4539 US-08-091-028A-34 5 US-09-140-719-34 9 US-09-508-997A-2        | 15 US-09-140-719-4 | ID                          |
| Sequence 4, Appli<br>Sequence 4539, Ap<br>Sequence 34, Appl<br>Sequence 34, Appl<br>Sequence 2, Appli | Sequence 4, Appli  | Description                 |

| 7  | 83 | 100.0 | 380 | 21 | US-09-791-537-281  | Sequence 281, App |
|----|----|-------|-----|----|--------------------|-------------------|
| œ  | 83 | 100.0 | 380 | 23 | -09-936-883A-2     | 2, Ap             |
| 9  | 83 |       | 380 | 24 | S-10-091-442-3     | 34                |
| 10 | 83 | 0     | 380 | 25 | -10-110-030-2      | 'n                |
| 11 | 73 | 8     | 378 | 21 | -09-791-537-       | 458               |
| 12 | 73 | 8     | 378 | 24 | 0-023-634-84       | 8                 |
| 13 | 69 | ω.    | 17  | 4  | 08-091-0           | 4, Appl           |
| 14 | 69 | ω     | 17  | 4  | -08-091-028A       | ۵,                |
| 15 | 69 | ω     | 88  | 27 | -60-196-718-416    | e 4162,           |
| 16 | 69 | ω.    | 102 | 27 | 60-196-718-416     |                   |
| 17 | 69 | 83.1  | 116 | 22 | 09-834-366-227     | 22782,            |
| 18 | 69 | ω     | 116 | 27 | -60-197-873-227    | e 22782,          |
| 19 | 69 | ω.    | 217 | ب  | <b>US01-09369-</b> | 134,              |
| 20 | 69 | Ψ     | 217 | -  | 4-                 | 8, Ap             |
| 21 | 69 | ω     | 217 | 16 | 09-235-609-        | e<br>8            |
| 22 | 69 | 83.1  | 217 | 19 | 09-539-33          | 134               |
| 23 | 69 | ω     | 217 | 21 | US-09-729-674-134  | Sequence 134, App |
| 24 | 69 | 83.1  | 340 | _  | PCT-US01-01320-169 | 1 ,691            |
| 25 | 69 | ω.    | 340 | 21 | US-09-764-898-169  | e 169,            |
| 26 | 69 | 83.1  | 368 | 19 | US-09-508-997A-6   | 6, A              |
| 27 | 69 | ω.    | 368 | 23 | US-09-936-883A-21  | 21,               |
| 28 | 69 | ω.    | 368 | 25 | US-10-110-030-6    | 6,                |
| 29 | 69 | ω.    | 379 | 16 | US-09-283-946-2    | 2                 |
| 30 | 69 | ω.    | 379 | 22 | -09-852-911-94     | 946               |
| 31 | 69 | ·     | 379 | 22 | -09-895-814-9      | 946,              |
| 32 | 69 | ω.    | 379 | 24 | -006-920-94        | 946,              |
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| 34 | 69 | Ψ     | 379 | 25 | US-10-144-678A-946 | 946,              |
| 35 | 69 | Ψ     | 617 | _  | PCT-US02-07215-14  | 14, Ap            |
| 36 | 69 | ω     | 617 | 22 | US-09-852-911-947  | e 947,            |
| 37 | 69 | ω.    | 617 | 22 | ٠                  | 947,              |
| 38 | 69 | ω.    | 617 | 24 | US-10-006-920-947  | 947,              |
| 39 | 69 | 83.1  | 617 | 24 | -10-012-896-9      | e 947,            |
| 40 | 69 | Ψ     | 617 | 24 | -10-094-944-1      | e 14,             |
| 41 | 69 | ω     | 617 | 25 | -10-144-678A-      | e 947,            |
| 42 | 8  | ۳     | 379 | 24 | -10-023-63         | e 85, /           |
| 43 | 8  | 81.9  | 379 | 24 | -10-023-634-8      | e 86,             |
| 44 | 83 | ۳     | 388 | 21 | -09-791-537-       | <u>, .</u>        |
| 45 | 67 | 80.7  | 135 | 20 | 464E               | e 21,             |
|    |    |       |     |    |                    |                   |
|    |    |       |     |    |                    |                   |

# ALIGNMENTS

| ٠ | ••                                | ••                        | ٠.                                             | ••                              | ٠.                          | ٠.                       | ٠.                      | ••              | ٠.                     | ٠.                | ٠.               | ٠.                    | ٠.                                        | ٠.                      | ٠.                      | ٠.                                                       | ٠.                           | ٠.                        | ٠.                           | ٠.                          | ٠.                      | ••                           | ٠.                          | ٠.                       | ٠.                               | ٠.                   | ٠.<br>ص                             | -Sn             | RES      |
|---|-----------------------------------|---------------------------|------------------------------------------------|---------------------------------|-----------------------------|--------------------------|-------------------------|-----------------|------------------------|-------------------|------------------|-----------------------|-------------------------------------------|-------------------------|-------------------------|----------------------------------------------------------|------------------------------|---------------------------|------------------------------|-----------------------------|-------------------------|------------------------------|-----------------------------|--------------------------|----------------------------------|----------------------|-------------------------------------|-----------------|----------|
|   | APPLICATION NUMBER: US/09/140,719 | CURRENT APPLICATION DATA: | SOFTWARE: PatentIn Release #1.0, Version #1.30 | OPERATING SYSTEM: PC-DOS/MS-DOS | COMPUTER: IBM PC compatible | MEDIUM TYPE: Floppy disk | COMPUTER READABLE FORM: | ZIP: 22313-1404 | COUNTRY: United States | STATE: Virginia . | CITY: Alexandria | STREET: P.O. Box 1404 | ADDRESSEE: Burns, Doane, Swecker & Mathis | CORRESPONDENCE ADDRESS: | NUMBER OF SEQUENCES: 34 | TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR | APPLICANT: YAMAGUCHI, NOZOMI | APPLICANT: YAMAICHI, KOZO | APPLICANT: KURIHARA, Tatsuya | APPLICANT: ISHIDA, Nobuhiro | APPLICANT: MIURA, Kenju | APPLICANT: NAKAZATO, Hiroshi | APPLICANT: TSUROUOKA, Nobuo | APPLICANT: IWASA, Fuyuki | APPLICANT: TSUJIMOTO, Masafumi . | GENERAL INFORMATION: | Sequence 4, Application US/09140719 | US-09-140-719-4 | RESULT 1 |

PRIOR APPLICATION DATA:

08-AUG-1998

APPLICATION NUMBER: FILING DATE: 07-JU

US 08/474,661

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US-10-091-442-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: UFILING DATE: 14-JUL-1PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 39,300 REFERENCE/DOCKET NUMBER: 00:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER:
                                                                                                         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version
                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: Unknown>
                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSE: Burns, Doane, Swecker & Mathis
STREET: P.O. Box 1404
                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
Similarity 100.0%;
                                                                                                                                                                                                                                   CITY: Alexandria
STATE: Virginia
APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                     COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                 KURIHARA, Tatsuya
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fuyuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JP 6-067339
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3.6e-07;
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APPLICANT:

KURIHARA, Tatsuya

ISHIDA, Nobuhiro

APPLICANT:

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; Sequence 34, Application; GENERAL INFORMATION: APPLICANT: TSUJIMO APPLICANT: TWASA,
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GEMERAL INFORMATION:
APPLICANT: Beasley,
TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                                     US-08-091-028A-34
                                                                                                                                                                                                                                                                                                                               ; ORGANISM: HUMAN US-60-188-162-4539
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                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/60/188,162
CURRENT FILING DATE: 2000-05-09
NUMBER OF SEQ ID NOS: 5094
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4539
LENGTH: 118
TYPE: PRT
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Best Local Similarity

Matches 17; Conserv
                                                                                                                                                                                                                                                                           Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (703) 836-202:
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENCTH: 17 amino acids
TYPE: amino acid
APPLICANT:
                 APPLICANT:
                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: peptid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                       . Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992 APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                     Application US/08091028A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beasley, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/60188162
                 TSURUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
MIURA, Kenju
                                                 IWASA, Fuyuki
                                                                   TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISOLATED HUMAN SECRETED PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 83; DB 24; 100.0%; Pred. No. 3.6e-07;
                                                                                                                                                                                                                                                                           100.0%;
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Pred. No.
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SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-091-028A-34
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US-09-140-719-34
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Best Local Similarity 100.
Watches 17; Conservative
                                                                                                                                                                                                                                                                           Sequence 34, Applicat GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/ACENT INFORMATION:
NAME: REA, TERESA STANEK
REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (703) 836-66
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                APPLICANT:
APPLICANT:
APPLICANT:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/091.0000
FILING DATE: 14-707.
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE
                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Alexandria
STATE: Virginia
                                          CITY: Alexandria
STATE: Virginia
                COUNTRY: United States 
ZIP: 22313-1404
                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE:
                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                               RY: United States 22313-1404
                                                                                                   INVENTION: MEGAKARYOCYTE
                                                                                                                                                                                                                                                                                       Application US/09140719
                                                                     E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    George Mason Bldg., Washington & Prince Sts.
                                                                                                                                                       KURIHARA, Tatsu
YAMAICHI, Kozo
                                                                                                                                                                                                                              TSUROUOKA, Nobuo
                                                                                                                                                                                                      MIURA, Kenju
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                                                                                                                                                                                       ISHIDA, Nobuhiro
                                                                                                                                                                                                                NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                            Fuyuk
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                                                                                                                                                                    Tatsuya
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Pred. No. 2.4e-05;
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                                                                                                                             DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 380;
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                                                                                                                              LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
US-09-508-997A-2
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Best Local Similarity
Thehes 17; Conserva
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                                                                                                                                                                              SEQ ID NO 2
LENGTH: 380
                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/09508997A GENERAL INFORMATION:
                                                               Matches
                                                                                Query Match
Best Local 9
                                                                                                                                                                                                                                                                           FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
                                                                                                                                                                                                                                                                                                                            APPLICANT: MIYATA, Toshio TITLE OF INVENTION: Megsin Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                325 SYIEVTEEGTEATAATG 341
325 SYIEVTEEGTEATAATG 341
                                                               .17;
                  1 SYIEVTEEGTEATAATG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 SYIEVTEEGTEATAATG 17
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nilarity 100.0%;
Conservative (
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ilarity 100.0%;
Conservative
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                                                             Score 83; DB 19;
Pred. No. 2.4e-05;
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Pred. No. 2.4e-05;
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RESULT 7

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NUMBER OF SEQUENCES:

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RESULT 9
US-10-091-442-34
Sequence 34, Application US/10091442
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens US-09-936-883A-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens US-09-791-537-281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-791-537-281
                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 2
LENGTH: 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application: GENERAL INFORMATION: APPLICANT: MIYATA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: Patentin version 3.0
SEQ ID NO 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 281, Applia GENERAL INFORMATION
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APPLICANT: Danzer, Joseph
APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERTITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 21 SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/936,883A
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                                                                                                                                                                                                                                                                                                                                            Local Similarity
     TITLE
                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                             325 SYIEVTEEGTEATAATG 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  325 SYIEVTEEGTEATAATG 341
                                                                                                                                                                                                                                                                                                                              17;
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                                                                                                                                                                                                                                                                                             SYIEVTEEGTEATAATG 17
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     QF)
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                                                                                                                                                                                                                                                                                                                              Conservative
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INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
           KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NOZOMi
                                                                                                                                              TSUJIMOTO, Masafumi
                                                                                          IWASA, Fuyuki
TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                MIURA, Kenju
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                                                                                                                                                                                                                                                                                                                                            Score 83;
Pred. No.
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Pred. No.
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; SEQUENCE DESCRIPTION: SEQ ID NO: US-10-091-442-34
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US-10-110-030-2
; ORGANISM: Homo sapiens US-10-110-030-2
                                                                         SOFTWARE: F
SEQ ID NO 2
                                                                                                                                                                                                                                    Sequence 2, Application US/10110030
GENERAL INFORMATION:
APPLICANT: MIYATA, TOSHIO
TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE
TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/110,030 CURRENT FILING DATE: 2002-04-03
                                                                                                                                    PRIOR APPLICATION NUMBER: 11/285736 PRIOR FILING DATE: 1999-10-06
                                                                                                                                                                                                                  FILE REFERENCE: SHIM015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
                                                       LENGTH: 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                     1 SYIEVTEEGTEATAATG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-UN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-UL-1993
APPLICATION NUMBER: UF 4-212305
FILING DATE: 17-UL-1992
FILING DATE: 17-UL-1992
                                                                                                FastSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Burns, Doa
STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 07-Mar-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION DATA:
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                                                                                                for Windows Version 4.0
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(703) 836-2021
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US-09-791-537-45859
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Matches
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CURRENT FILING DATE: 2001-02-22
NUMBER OF SEO ID NOS: 153055
SOFTWARE: Patentin version 3.0
SEO ID NO 45859
LENGTH: 378
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 84, Application US/10023634 GENERAL INFORMATION:
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APPLICANT:
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APPLICANT: Debe, Derek
APPLICANT: Denzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBE
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
APPLICANT: Millet, Isabelle
APPLICANT: Gerlach, Valerie
TITLE OF INVENTION: Proteins, Polynucleotides Encoding
TITLE OF INVENTION: Using the Same
FILE REFERENCE: 21402-221
CURRENT APPLICATION NUMBER: US/10/023,634
CURRENT FILING DATE: 2002-06-28
PRIOR APPLICATION NUMBER: 60/256,025
PRIOR APPLICATION NUMBER: 60/256,025
PRIOR APPLICATION NUMBER: 60/265,163
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hes 14; Conservative
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                                                                                                                                               Gangolli, Esha A
Malyankar, Uriel M
Gunther, Erik
Smithson, Glennda
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Guo, Xiaojia
Guo, Xiaojia
Velizar T
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Spytek, Kimberly A
Ballinger, Robert !
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Edinger, Shlomit R
                                                                                                                                                                                                                                                                                            Ellerman, Karen
Zerhusen, Bryan D
                                                                                                                                                                                                                                                       Boldog,
                                                                                                                                                                                                                                                                                                                                             Shenoy, Suresh G
                                                                                                                                                                                                                                                                   Casman, Stacie J
                                                                                                                                                                                                                                                                                    Patturajan, Meera
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Pred. No. 2.4e-05;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .0013;
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; ORGANISM: Bos taurus US-10-023-634-84
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US-08-091-028-4
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Best Local :
                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
SOFTWARE: Patentin Release #1.0, Ve.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/091,028
FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                             APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: Crane-Feury, Sharon E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/277,880
PRIOR FILING DATE: 2001-03-22
PRIOR APPLICATION NUMBER: 60/286,409
PRIOR FILING DATE: 2001-04-25
PRIOR APPLICATION NUMBER: 60/309,246
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                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                  STREET: George Mason Blc
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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           NAME: Crane-Feury, Sharon E REGISTRATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/272,929
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR F SEQUENCES: 33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08091028
                                                                                                                                                                                                                                                                                                                                                                                                             3: Burns, Doane, Swecker & Mathis
George Mason Bldg., Washington & |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIURA, Kenju
ISHIDA, Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TSURUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YAMAGUCHI, Nozomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KURIHARA, Tatsuya
YAMAICHI, KOZO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TSUJIMOTO, Masafumi
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OS: 132
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001560-204
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TELEFAX: (703) 836-6620 INFORMATION FOR SEQ ID NO: 4

4.

TELEPHONE:

(703) 836-6620

SEQUENCE CHARACTERISTICS:

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LENGTH: 17 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
US-08-091-028-4
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US-08-091-028A-4
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         TELEFAX: (103) 836-6620
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
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Best Local Similarity 87.5
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                                                                                                                                                   REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                      APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY_AGENT INFORMATION:
NAME: REA, TERESA STANEK
                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: U$2/08/091,028A
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
TITLE OF I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: United ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
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George Mason Bldg., Washington & Prince Sts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TSURUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YAMAGUCHI, Nozomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIURA, Kenju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IWASA, Fuyuki
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AMAICHI, Kozo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SHIDA, Nobuhiro
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CURRENT APPLICATION NUMBER: US/60/196,718
CURRENT FILING DATE: 2000-04-13
NUMBER OF SEQ ID NOS: 7494
SOFTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4162
LENGTH: 88
TYPE: PRT
ORGANISM: HUMAN
US-60-196-718-4162
Search completed: July 11, 2003, 12:27:31 Job time: 54.5094 secs
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                                                                                     Qy
                                                                                                                                                                                                                                                                                                                           Sequence 4162, Application US/
GENERAL INFORMATION:
APPLICANT: Bonazzi, Vivien
TITLE OF INVENTION: ISOLATED
TITLE OF INVENTION: NUCLEIC
TITLE OF INVENTION: USES THE
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Best Local
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Best Local
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13; Conserv
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                                                                                                                                                                                                                                                       FastSEQ for Windows Version 4.0
                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                CL000456
                                                                                                                                                                                                                                                                                                                              ISOLATED HUMAN SECRETED PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND USES THEREOF
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87.5%;
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76.5%;
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
       protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pending_Patents_AA_New:*

1: /cgn2_6/ptodata/1/paa/P

2: /cgn2_6/ptodata/1/paa/P

3: /cgn2_6/ptodata/1/paa/U

4: /cgn2_6/ptodata/1/paa/U

5: /cgn2_6/ptodata/1/paa/U

6: /cgn2_6/ptodata/1/paa/U

6: /cgn2_6/ptodata/1/paa/U

9: /cgn2_6/ptodata/1/paa/U

10: /cgn2_6/ptodata/1/paa/U

11: /cgn2_6/ptodata/1/paa/U

12: /cgn2_6/ptodata/1/paa/U

13: /cgn2_6/ptodata/1/paa/U

14: /cgn2_6/ptodata/1/paa/U
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length: 2000000000
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83
1 SYIEVTEEGTEATA
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Match
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:/cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*
:/cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*
:/cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*
:/cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*
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Copyright (c) 1993 - 2003 Compu
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     11122222224444422
 4 US-60-443-566-3006
4 US-60-445-444-4692
4 US-60-445-241-7456
4 US-60-445-241-7456
4 US-60-445-466-3717
4 US-60-445-466-3717
4 US-60-455-441-5630
4 US-10-198-070-67
2 US-10-198-070-67
2 US-10-198-070-70
2 US-10-198-070-70
2 US-10-294-62-72158-14
2 US-10-325-745-10
4 US-60-455-444-7456
4 US-60-465-241-7456
                                                                                                                                                                                                                                                                                                     US-09-936-883C-2
US-10-126-052A-263
                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
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280.699 Million cell updates/sec
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Sequence 14, Appl
Sequence 947, Appl
Sequence 10, Appl
Sequence 439, Ap
Sequence 7456, Ap
Sequence 7456, Ap
                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                    Sequence 2, Appli
Sequence 263, App
Sequence 3006, App
Sequence 4692, Ap
Sequence 21, Appl
Sequence 3717, App
Sequence 5630, Ap
Sequence 5630, Ap
Sequence 626, Appl
Sequence 61, Appl
Sequence 67, Appl
Sequence 67, Appl
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| 45                | 44                | 43                | 42                  | 41                  | 40                  | 39                  | 38                  | 37                  | 36                | 35                | 34                | 33                 | 32                   | 31                 | 30                 | 29                   | 28                   | 27                | 26                 | 25                | 24                | 23                 | 22                 | 21                 | 20                |
|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|-------------------|-------------------|--------------------|----------------------|--------------------|--------------------|----------------------|----------------------|-------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|
| 62                | 62                | 62                | 62                  | 62                  | 62                  | 62                  | 62                  | 62                  | 62                | 62                | 62                | 62                 | 62                   | 62                 | 62                 | 63                   | 63                   | 64                | 64                 | 65                | 67                | 67                 | 67                 | 67                 | 67                |
| 74.7              | 74.7              | 74.7              | 74.7                | 74.7                | 74.7                | 74.7                | 74.7                | 74.7                | 74.7              | 74.7              | 74.7              | 74.7               | 74.7                 | 74.7               | 74.7               | 75.9                 | 75.9                 | 77.1              | 77.1               | 78.3              | 80.7              | 80.7               | 80.7               | 80.7               | 80.7              |
| 379               | 379               | 379               | 377                 | 377                 | 377                 | 377                 | 377                 | 377                 | 377               | 376               | 376               | 372                | 189                  | 188                | 116                | 389                  | 259                  | 384               | 384                | 380               | 400               | 391                | 391                | 391                | 391               |
| 14                | N                 | N                 | 14                  | 14                  | 14                  | 14                  | 14                  | 14                  | 12                | 14                | 14                | 12                 | 12                   | 12                 | 12                 | 12                   | 12                   | 12                | N                  | 10                | 12                | 14                 | 14                 | 14                 | 12                |
| US-60-448-285-3   | PCT-US02-07215B-9 | PCT-US03-12731-14 | US-60-466-412-12141 | US-60-466-412-12140 | US-60-453-050-12141 | US-60-453-050-12140 | US-60-453-135-12141 | US-60-453-135-12140 | US-10-144-779-358 | US-60-474-733-297 | US-60-448-285-7   | US-10-130-138A-150 | us-10-437-963-184620 | US-10-130-138A-110 | US-10-130-138A-108 | US-10-424-599-199591 | US-10-424-599-199590 | US-10-144-779-361 | PCT-US02-07215B-19 | US-09-936-883C-19 | US-10-313-986-112 | US-60-465-241-7457 | US-60-455-444-7457 | US-60-443-566-4400 | US-10-313-986-110 |
| Sequence 3, Appli | Sequence 9, Appli | Sequence 14, Appl | Sequence 12141, A   | Sequence 12140, A   | Sequence 12141, A   | Sequence 12140, A   | Sequence 12141, A   | 12140               | 358,              | 297               | Sequence 7, Appli | 150                | Sequence 184620,     | 110,               | Sequence 108, App  | Sequence 199591,     |                      | Sequence 361, App | 19, 1              | Sequence 19, Appl | 112, /            | 7457,              | Sequence 7457, Ap  | Sequence 4400, Ap  | Sequence 110, App |

### ALIGNMENTS

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Sequence 2, Application US/09936883C
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Pro
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DD1PCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 199-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-10-28
PRIOR APPLICATION NUMBER: JP
PRIOR APPLICATION NUMBER: JP
PRIOR APPLICATION NUMBER: JP
PRIOR APPLICATION NUMBER: JP
PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
                                                                                                                                                       RESULT 2
US-10-126-052A-263
Sequence 263, Application US/10126052A
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-936-883C-2
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SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 17; Conserv
       APPLICANT: Aziz, Natasha
APPLICANT: Murray, Richard
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions ar
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
FILE REFERENCE: 018501-001530US
CURRENT APPLICATION NUMBER: US/10/126,052A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                                                                                                                                      325 SYIEVTEEGTEATAATG 341
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PatentIn
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ilarity 100.0%;
Conservative (
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Pred. No. 4.2e-05;
Pred. No. 4.2e-05;
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US-60-455-444-4692; Sequence 4692, Application US/60455444; GENERAL INFORMATION:
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US-60-443-566-3006
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CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
SOFTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3006
LENGTH: 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3006, Application US/60443566 GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 263
LENGTH: 380
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Best Local
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                                                                                                                        TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DET: FILE REFERENCE: CL001455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR FILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2002-04-12
                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                      APPLICANT: CARGILL, Michele
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PRIOR FILING DATE: 2001-11-09
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PRIOR APPLICATION NUMBER: US 60/284,770
PRIOR FILING DATE: 2001-04-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 2001-05-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/290,492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ITLE OF INVENTION: GENETIC POLYMORPHISMS ITLE OF INVENTION: RHEUMATOID ARTHRITIS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
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                                                                                                                                                                                                                                                                                                                                                                                   1 SYIEVTEEGTEATAATG 17
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17; Conserv
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                                                                                                                                                                                     BEGOVICH, Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BEGOVICH,
                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 83; Dilarity 100.0%; Pred. No. 4. Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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hes 0;
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4.2e-05;
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                                                                                                                                           METHODS OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 14;
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CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOCTWARR: FRACTSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
US-60-465-241-4692
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                                                                                                                      US-09-936-883C-21
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Best Local Similarity 100.
Watches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                            Sequence 21, Application US/09936883C GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:

APPLICANT: CARGILL, Michele

APPLICANT: BEGOVICH, Ann
                                                                                                                                                                             SOFTWARE: P
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Best Local :
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                                                           Matches
                                                                         Query Match
Best Local :
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                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/936,883C CURRENT FILING DATE: 2001-12-21
                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: A Method for Detecting Megsin Protein and TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT
                                                                                                                                                                                             PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-03-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETI-
                                                                                                                                   LENGTH: 368
TYPE: PRT
ORGANISM: Mus musculus
313 SFIEVSEEGTEATAAT 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   325 SYIEVTEEGTEATAATG 341
                 1 SYIEVTEEGTEATAAT 16
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                                                                       Similarity
                                                           Conservative
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                                                                         83.1%;
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                                                                         Score 69;
Pred. No.
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Pred. No. 4.2e-05
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Pred. No. 4.2e-05;
                                                         Mismatches
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                                                                         DB 10;
0.0075;
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RESULT 7

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CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FBSAUSEQ for Windows Version 4.0
SEQ ID NO 5630
LENGTH: 372
TYPE: PRT
ORGANISM: Homo sapiens
US-60-465-241-5630
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APPLICANT: CARGILL, Michele; APPLICANT: BEGOVICH, Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001447
CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOETWARE: F88tSEQ for Windows Version 4.0
SEQ ID NO 3717
LENGTH: 372
TYPE: PRT
ORGANISM: Homo sapiens
US-60-443-566-3717
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: SOFTWARE: FastSEQ for Windows Version 4.0
: SEQ ID NO 5630
: LENGTH: 372
: TYPE: PRT
: ORGANISM: Homo sapiens
US-60-455-444-5630
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US-60-455-444-5630
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GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, And ADDITION:
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5630, Application US/60455444
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
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Local Similarity 76.58;
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315 SYLDVSEEGTEAAAATG 331
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1 Similarity 76.5%;
13; Conservation
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Pred. No. 0.0076;
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US-10-198-070-62
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US-10-294-025-946
                                                                                                                                 ; ORGANISM: HOMO
US-10-198-070-62
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CURRENT FILING DATE: 2002-11-12
NUMBER OF SEQ ID NOS: 1038
SOFTWARE: FAST-SEQ for Windows Version 3.0
SEQ ID NO 946
LENGTH: 379
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 62, Application US/10198070
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
APPLICANT: GEMMELL, JACK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 946, Application US/10294025 GENERAL INFORMATION:
                                                      Matches
                                                                                          Query Match
                                                                                                                                                                                     SEQ ID NO 62
LENGTH: 392
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Best Local Similarity
                                                                                                                                                                                                                                                          APPLICANY: GENERAL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND (
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OI
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OI
TITLE OF INVENTION: COLLS
FILE REFERENCE: 59003.000008
CURRENT APPLICATION NUMBER: US/10/198,070
CURRENT FILING DATE: 2002-07-19
PRIOR APPLICATION NUMBER: 60/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR APPLICATION NUMBER: 60/31,477
PRIOR PILING DATE: 2001-07-19
PRIOR PILING DATE: 2001-11-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Xu, Jiangchun
APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C29
                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 125
SOFTWARE: PatentIn Ver. 2
                                                                                                                                                                     TYPE: PRT
                                                    Local Similarity 76. es 13; Conservative
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322 SYLDVSEEGTEAAAATG 338
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1 SYIEVTEEGTEATAATG 17
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76.5%;
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                                                  Score 69; DB Pred. No. 0.0003; Mismatches
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Pred. No. 0.0078;
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335 SYLDVSEEGTEAAAATG 351

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NUMBER OF SEQ ID NOS: 125
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 70
LENGTH: 392
TYPE: PRT
ORGANISM: Homo sapiens
US-10-198-070-70
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RESULT 14
PCT-US02-07215B-14
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; ORGANISM: Homo sapiens
US-10-198-070-67
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US-10-198-070-70
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US-10-198-070-67
                                                                                                                                           Query Match
Best Local Similarity 76.5
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Best Local Similarity 76.5%;
Matches 13; Conservative
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SOFTWARE: PatentIn Ver. 2.
SEQ ID NO 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence 70, Application US/10198070.
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 67, Application US/10198070 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND OTHER
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003.000008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/198,070 CURRENT FILING DATE: 2002-07-19 PRIOR APPLICATION NUMBER: 60/306,161 PRIOR FILING DATE: 2001-07-19 PRIOR APPLICATION NUMBER: 60/306,150 PRIOR FILING DATE: 2001-07-19
                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/198,070 CURRENT EILING DATE: 2002-07-19 PRIOR APPLICATION NUMBER: 60/306,161 PRIOR FILING DATE: 2001-07-19 PRIOR APPLICATION NUMBER: 60/306,150 PRIOR FILING DATE: 2001-07-19
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APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND OTHER
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION OF
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003.000008
                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/331,477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: AVERBACK, PAUL APPLICANT: GEMMELL, JACK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE:
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76.5%; Pred. No. 0.
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Pred. No. 0.0081;
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CURRENT APPLICATION NUMBER: PCT/US02/07215B
CURRENT FILING DATE: 2002-03-08
NUMBER OF SEQ ID NOS: 35
SOFTWARE: Patentin version 3.1
SEQ ID NO 14
FERCENT 617
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Immunex Corporation
APPLICANT: Clarke, Howard RG
APPLICANT: DuBose, Robert F
APPLICANT: Wiley, Steven R
TITLE OF INVENTION: HUMAN SERPIN POLYPEPTIDES
FILE REFERENCE: 3223-WO
NAME/KEY: MISC_FEATURE LOCATION: (425)..(425) OTHER INFORMATION: unsure
                                                                                     NAME/KEY: MISC_FEATURE LOCATION: (378)...(378) OTHER INFORMATION: unsure
                                                                                                                                                                             NAME/KEY: MISC_FEATURE LOCATION: (374)..(374) OTHER INFORMATION: unsure
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OTHER INFORMATION: unsure
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OTHER INFORMATION: unsure
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NAME/KEY: MISC_FEATURE
                                                                                                                                                             FEATURE
                                                                                                                                                                                                                                                                   NAME/KEY: MISC_FEATURE LOCATION: (369)...(369) OTHER INFORMATION: unsure
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OTHER INFORMATION: unsure
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LOCATION: (318)...(318)
OTHER INFORMATION: unsure
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OTHER INFORMATION: unsure
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THER INFORMATION: unsure
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RESULT 15
US-10-294-025-947

Sequence 947, Application US/10294025

GENERAL INFORMATION:
APPLICANT: Xu, Jiangchun
APPLICANT: Xtolk, John A.
APPLICANT: Kalos, Michael D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C29

CURRENT FILING DATE: 2002-11-12

NUMBER OF SEO ID NOS: 1038

SOFTWARE: FASTSEQ for Windows Version 3.0

SEO ID NO 947

LENGTH: 617

TYPE: PRT
ORGANISM: Homo Sapiens
FEATURE:
NAME/KEY: VARIANT
LOCATION: 369, 315, 225, 232, 233, 289, 309, 318, 322, 331, 332, 367, 10-294-025-947

US-10-294-025-947
Search completed: July 11, 2003, 12:35:07 Job time : 16.0751 secs
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LOCATION: (430)..(430)
OTHER INFORMATION: unsure
PCT-US02-07215B-14
                                                                                                                                                         Query Match 83.1%; Score 69; DB 12; Length 617; Best Local Similarity 76.5%; Pred. No. 0.013; Matches 13; Conservative 3; Mismatches 1; Indels
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Best Local Similarity 76.5%;
Matches 13; Conservative
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560 SYLDVSEEGTEAAAATG 576
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1: /cgn2_6/ptodata/1/paa/US

2: /cgn2_6/ptodata/1/paa/US

3: /cgn2_6/ptodata/1/paa/US

4: /cgn2_6/ptodata/1/paa/US

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Copyright (c) 1993 - 2003 Compus
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/cgn2_6/ptodata/1/paa/USO81_COMB.pep:*
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27
  5 US-09-140-719-5

7 US-10-091-442-5

7 US-60-160-203-4173

7 US-60-188-162-4539

US-08-991-028A-34

5 US-09-140-719-34
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                                                                                                                                                                                           Description
Sequence 5, Appli
Sequence 5, Appli
Sequence 4173, Ap
Sequence 4539, Ap
Sequence 34, Appl
Sequence 34, Appl
  Sequence 3
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| • |                                        |               |               |                  |            |                |            |               |                   |               |               |          |              |                 |               |                 |               |                |                 |                 |                    |                 |                 |                 |                 |                 |               |               |                |               |                  |                 |            |              |                |                  |             |                   |
|---|----------------------------------------|---------------|---------------|------------------|------------|----------------|------------|---------------|-------------------|---------------|---------------|----------|--------------|-----------------|---------------|-----------------|---------------|----------------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|----------------|---------------|------------------|-----------------|------------|--------------|----------------|------------------|-------------|-------------------|
|   | 32                                     | 32            | 32            | 32               | 32         | ω<br>ω         | 33         | 33            | <b>ω</b>          | 33            | မ             | ω<br>ω   | ω<br>S       | 34              | 34            | 34              | 34            | 34             | 34              | 34              | 34                 | 34              | 34              | 34              | 34              | 34              | 34            | 35            | 35             | 35            | 35               | 39              | 39         | 44           | 44             | 44               | 44          | 44                |
|   |                                        | 72.7          | ۲.            | 2                | ۳.         | 5              | 5.         | 75.0          | 5                 | 5             | 5             | 75.0     | 5            | 7.              | 7.            | 7.              | 7.            | 7.             | .7              | 7.              | 77.3               | .7              | 7.              | 7.              | .7              | 7.              | 77.3          | 9             | 9              | 9             | 9.               |                 | 8          | 0            |                | 100.0            | 0           | 100.0             |
|   | 102                                    | 96            | 92            | 92               | 80         | 1890           | 1465       | 1465          | 1366              | 36            | 36            | w        | 250          | 597             | 434           | 409             | 350           | 350            | 350             | 350             | 337                | 313             | 313             | 270             | 213             | 210             | 80            | 694           | 694            | 598           | 598              | 9               | 9          | 380          | 380            | 380              | 380         | 380               |
|   | 27                                     | 27            | 27            | 27               | 21         | 1              | 27         | 24            | 11                | 11            | _             | 27       | 15           | 19              | 25            | 25              | 22            | 22             | 21              | 21              | 27                 | 27              | 16              | 18              |                 | 21              | 21            | 27            | 22             | 26            | 21               | 4               | 4          | 25           | 24             | 23               | 21          | 19                |
|   | US-60-213-178-600<br>US-60-202-183-189 | -60-195-052-1 | -60-195-052-1 | -60-195-052-1080 | -791-537-1 | -US98-00615-E  | -333-726-1 | -10-083-357-1 | -08-781-734A-     | -08-781-734-2 | -US98-00615-2 | 60-360-0 | -09-184-082- | -09-540-209B-98 | -10-179-131-5 | -10-179-131-787 | -09-847-208B- | -09-847-208-53 | -09-791-537-996 | -09-791-537-806 | US-60-360-039-8700 | -60-096-409-170 | -09-248-796-170 | -09-417-507-347 | -US01-08631-365 | -09-791-537-928 | 9-791-537-489 | -60-118-610-5 | -09-856-679-12 | -10-216-583-1 | S-09-760-469-121 | -091-028A-      | -08-091-02 | S-10-110-030 | S-10-091-442-3 | IS-09-936-883A-2 | -09-791-537 | US-09-508-997A-2  |
|   | Sequence 189, App                      | equence 1000, | equence       | equence 1080,    | e 148885   | quence 88, App | 1310,      | 13            | Sequence 22, Appl | 22            | quence 22,    | e 20     | e 2, 1       | e 9878          | equence 5557  | ω<br>           | e 53,         | The second     | The second      | m               | Sequence 8700, Ap  | CO.             | M.              | င္က             |                 | equence         | equence       | equence       | equence        | equence       | ce 1213,         | equence 5, Appl | <u>ა</u>   | e 2, Appl    | e 34, Ap       | e 2, F           | e 281, A    | Sequence 2, Appli |

### ALIGNMENTS

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RESULT 1

US-09-140-719-5

Sequence 5, Application US/09140719

GEMERAL INFORMATION:
APPLICANT: TSUJIMOTO, Massfumi
APPLICANT: IWASA, FUYUKi
APPLICANT: IWASA, FUYUKi
APPLICANT: MIURA, Kenju
APPLICANT: MIURA, Kenju
APPLICANT: YAMAGUCHI, NOZOMi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STATE: V.O. Box 1404
CITY: Alexandria
STATE: Vinited States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/09/140,719
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/474,661

08-AUG-1998

07-JUN-1995

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TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 5:
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TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: JP 6
FILING DATE: 04-MAR-1993
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PRIOR APPLICATION DATA:
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STRANDEDNESS: sir
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
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                                         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <UNKnown>
                                                                                                                                                                                                                                                                                                                            YAMAGUCHI, NOZOMİ
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                        COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                         CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                           ADDRESSEE: Burns, Doane,
STREET: P.O. Box 1404
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linear
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YAMAICHI, Kozo
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TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
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Pred. No.
                                                                                                                                                                                                                                                                                               Swecker & Mathis
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RESULT 4
US-60-188-162-4539
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US-60-160-203-4173
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                                 APPLICANT: Beasley, Ellen
TITLE OF INVENTION: UCLE:
TITLE OF INVENTION: UCLE:
TITLE OF INVENTION: USES:
FILE REFERENCE: CL000518
                                                                                                                            Sequence 4539, Application US/60188162 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/60/160,203
CURRENT FILING DATE: 1999-10-19
NUMBER OF SEQ ID NOS: 6374
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4173
LENGTH: 78
TYPE: PRT
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TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS AND
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: CL000116
CURRENT APPLICATION NUMBER: US/60/188,162
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INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
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les 9; Conserv
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TELECOMMUNICATION INFORMATION:
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1 QYLRALGLK 9
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TELEFAX: (703) 836-2021
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FILING DATE: 17-7UL-1992
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
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                                                     ISOLATED HUMAN SECRETED PROTEINS, AND NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS, AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                         100.0%;
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                            Query Match
  Matches
                                                                                                                            TELEFAX: (703) 836-6520 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                  REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                         APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
Burns, Doane, Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 34
                                                                       MOLECULE TYPE:
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                                                                                                                LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 14 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Alexandria
STATE: Virginia
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nes 9; Conserv
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                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/091,028A FILING DATE: 14-JUL-1993
 Local Similarity
les 9; Conserva
                                                                                     TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                         TELEPHONE:
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                                                                                                                                                                                                                               REA, TERESA STANEK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               United States
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NAKAZATO, Hiroshi
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  Conservative
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              100.0%;
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 0
             Score 44;
Pred. No. 6
Mismatches
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                          DB 4; Length 380;
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Indels
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                                                                             Query Match
Best Local :
                                                            Matches
                                                                                                                                                                                                                      TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
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APPLICATION NUMBER:
FILING DATE: 14-JUL-
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MEDIUM TYPE: Floppy disk
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APPLICATION NUMBER:
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APPLICATION NUMBER: US 08/474,661
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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                                                         Local Similarity nes 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                       TOPOLOGY:
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289 QYLRALGLK 297
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                                                                                                                                                                                                                                                                                                                    McGowan, Malcolm K.
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P.O. Box 1404
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YAMAICHI, KOZO
YAMAGUCHI, NOZOMi
                                                              Conservative
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NAKAZATO, Hiroshi
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08-AUG-1998
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Pred. No.
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US-09-791-537-281
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   SOFTWARE: F
SEQ ID. NO 2
                                                                                                                                                                                                         Sequence 2, Application US, GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 281, Application US/09791537 GENERAL INFORMATION:
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                                                                                 CURRENT APPLICATION NUMBER: US/09/936,883A CURRENT FILING DATE: 2001-12-21 PRIOR APPLICATION NUMBER: JP 1999-75305 PRIOR FILING DATE: 1999-03-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
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CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
                   NUMBER OF SEQ ID NOS: 21 SOFTWARE: PatentIn Ver. 2.0
                                                   PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-10-28
                                                                                                                                                                         TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use TITLE OF INVENTION: Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBI
TITLE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                         FILE REFERENCE: F2-101DP1PCT
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ORGANISM: Homo sapiens
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nes 9; Conserv
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Pred. No.
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Query Match
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US-10-091-442-34
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Best Local Similarity
                                                                                                                                         INFORMATION FOR SEQ ID NO: 34:
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                MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: 34:
                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                    SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
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STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
                                                                            TYPE: amino acids
                                                                                                                                                            TELEFAX:
                                                                                                                                                                                                                                    NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
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                                                                                                                                                                                                                                                                                                                                            FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/140,719
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YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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Pred. No.
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Score 44;

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APPLICANT: Miyata,

0-110-030-2

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; TYPE: PRT ; ORGANISM: Homo sapiens US-10-110-030-2
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT FILING DATE: 2002-04-03
PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
NUMBER OF SEQ ID NOS: 15
NOSTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                   COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                              FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992 PRIOR APPLICATION DATA:
                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                              STATE: Virginia
                                                                                                                     APPLICATION NUMBER: US/08/091,028
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George Mason Bldg., Washington & Prince Sts
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Conservative 0;
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JP 5-067339
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Pred. No.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (703) 836-662
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                               TELEFAX: (703) 836-66
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                      APPLICATION NUMBER: JP 5
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: REA, TERESA STANEK
                                                                                                                                                                                                        APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 14-JUL-19
                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                           REFERENCE/DOCKET NUMBER: 00
                                                                                                                   NAME: REA, TERESA STANEK REGISTRATION NUMBER: 30,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Crane-Feury, Sharon E
REGISTRATION NUMBER: 36,113
                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: sir
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CITY: Alexandria
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Similarity 100.0%;
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George Mason Bldg., Washington & Prince Sts
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YAMAICHI, KOZO
YAMAGUCHI, NOZOmi
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NAKAZATO, Hiroshi
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Pred. No.
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Query Match Best Local

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Matches

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US-08-091-028-5

SENERAL INFORMA

APPLICANT:

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US-09-760-469-1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-760-469-1213
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 1983
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1213
LENGTH: 598
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: ROSEN et al.
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PTZ54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1213,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 8; Conserv
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                                PRIOR APPLICATION NUMBER: 60/225,447
PRIOR FILING DAYE: 2000-08-14
PRIOR APPLICATION NUMBER: 60/218,290
PRIOR FILING DATE: 2000-07-14
                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/216,583
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/760,469
CURRENT FILING DATE: 2001-01-16
                                                                                                                                                                                                                                                                                                                                                RIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
STRANDEDNESS: sinc
TOPOLOGY: linear
MOLECULE TYPE: pept:
                                                                                                                                                                                                                                                                                                                                                                                                                  ILE REFERENCE: PTZ54C1N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity res 7; Conserv
                                                                                                                                                                                                                                                                       FILING DATE: 2001-01-16
APPLICATION NUMBER: 60/179,065
FILING DATE: 2000-01-31
APPLICATION NUMBER: 60/180,628
FILING DATE: 2000-02-04
                                                                                                                                                                                                                                                                                                                                                          NT FILING DATE: 2002-08-12
APPLICATION NUMBER: 09/760,469
                                                                                                FILING DATE: 2000-07-26
APPLICATION NUMBER: 60/217,496
FILING DATE: 2000-07-11
                                                                                                                                                                     APPLICATION NUMBER: 60/225,758 FILING DATE: 2000-08-14
                                                                                                                                                                                                                       APPLICATION NUMBER: 60/217,487
                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/214,886 FILING DATE: 2000-06-28
                                                                                                                                                     APPLICATION NUMBER: 60/220,963
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Prior Application data removed - See File Wrapper or PALM SEQ ID NOS: 1983
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Pred. No. 6.5e+02;
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; SOPTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1213
; LENGTH: 598
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-216-583-1213

Query Match
Best Local Similarity 87.5%; Pred. No. 6.5e+02;
Matches 7; Conservative 1; Mismatches 0; Indels 0; Gaps

Qy 1 QYLRALGL 8
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Db 455 RYLRALGL 462

Search completed: July 11, 2003, 12:27:33

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Minimum DB
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1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep1:*

2: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

3: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

4: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

5: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep4:*

7: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep4:*

9: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

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11: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

12: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

13: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

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Gapop 10.0 , Gapext 0.5
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BB
              US-09-936-883C-2
US-10-126-052A-263
US-60-443-566-3006
US-60-445-44-692
US-60-465-241-4692
US-10-437-963-117663
US-10-369-493-8700
US-10-369-493-8700
US-10-369-493-8707
US-10-425-114-60805
US-10-425-114-59319
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280.699 Million cell updates/sec
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              Sequence 8700, Ap
Sequence 47577, A
Sequence 20450, A
Sequence 115178,
Sequence 60805, A
Sequence 608319, A
Sequence 60833, A
Sequence 71125, A
Sequence 10374, A
Sequence 1034, A
Sequence 1034, A
                                                                                                                                                                                                                          Sequence 2, Appli
Sequence 263, App
Sequence 3006, Ap
Sequence 4692, Ap
Sequence 4692, Ap
Sequence 150051,
Sequence 117663,
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| 45                   | 44                  | 43                  | 42                 | 41                   | 40                  | 39                 | 38                 | 37                | 36                | 35<br>5           | 34                | 33                | 32                 | 31                | 30                | 29                  | 28                | 27     | 26                 | 25                   | 24                | 23                   | 22                 | 21                   | 20                 |
|----------------------|---------------------|---------------------|--------------------|----------------------|---------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|---------------------|-------------------|--------|--------------------|----------------------|-------------------|----------------------|--------------------|----------------------|--------------------|
| 32                   | 32                  | 32                  | 32                 | 32                   | 32                  | 32                 | 32                 | 32                | 32                | 32                | 32                | 32                | 32                 | 32                | 32                | 32                  | 32                | 32     | 32                 | 32                   | 32                | 32                   | 32                 | 32                   | 32                 |
| 72.7                 | 72.7                | 72.7                | 72.7               | 72.7                 | 72.7                | 72.7               | 72.7               | 72.7              | 72.7              | 72.7              | 72.7              | 72.7              | 72.7               | 72.7              | 72.7              | 72.7                | 72.7              | 72.7   | 72.7               | 72.7                 | 72.7              | 72.7                 | 72.7               | 72.7                 | 72.7               |
| 591                  | 591                 | 591                 | 591                | 523                  | 481                 | 481                | 481                | 481               | 481               | 481               | 481               | 481               | 473                | 467               | 465               | 465                 | 456               | 447    | 408                | 382                  | 377               | 342                  | 281                | 257                  | 228                |
| N                    | N                   | N                   | ຎ                  | 12                   | 14                  | 14                 | 14                 | 14                | 14                | 14                | 14                | 12                | 12                 | 12                | 12                | 12                  | 10                | 10     | 12                 | 12                   | 12                | 12                   | 12                 | 12                   | N                  |
| PCT-US03-07858A-2393 | PCT-US03-07858A-702 | PCT-US03-07858-2393 | PCT-US03-07858-702 | US-10-282-122A-77204 | US-60-466-412-13699 | US-60-465-241-7275 | US-60-455-444-7275 | -050-1369         | -135-             | -2223             | -443-             | ;                 | US-10-446-203-8988 | US-10-380-731-743 | 1891              | US-10-366-683-18919 |                   |        | US-10-369-493-6303 | US-10-282-122A-48213 | -10-437-963-19807 | US-10-282-122A-66837 | US-10-030-019A-380 | US-10-437-963-115387 | PCT-US03-01605-318 |
| •                    | Sequence 702, App   | Sequence 2393, Ap   | Sequence 702, App  | Sequence 77204, A    | Sequence 13699, A   | Sequence 7275, Ap  | Sequence 7275, Ap  | Sequence 13699, A | Sequence 13699, A | Sequence 22239, A | Sequence 4405, Ap | Sequence 742, App | Sequence 8988, Ap  | Sequence 743, App | Sequence 18919, A | Sequence 18919, A   | Sequence 15, Appl | 248, 1 | Sequence 6303, Ap  | Sequence 48213, A    |                   | Sequence 66837, A    | Sequence 380, App  | Sequence 115387,     | Sequence 318, App  |

### ALIGNMENTS

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Sequence 2, Application US/09936883C
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and
TITLE OF INVENTION: Thereof
FILE REFERNCE: F2-101DPIPCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-10-28
PRIOR FILING DATE: 1999-10-28
                                                                                                                                                     US-10-126-052A-263; Sequence 263, Application US/10126052A; GENERAL INFORMATION:
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LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                  Query Match

Best Local Similarity

Matches 9; Conserv
              APPLICANT: Aziz, Natasha
APPLICANT: Murray, Richard
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
FILE REFERENCE: 018501-00153005
CURRENT APPLICATION NUMBER: US/10/126,052A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 21 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                          289 QYLRALGLK 297
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PRIOR APPLICATION NUMBER: US 60/290,492 PRIOR FILING DATE: 2001-05-10

CURRENT FILING DATE: 2002-04-PRIOR APPLICATION NUMBER: US 6 PRIOR FILING DATE: 2001-04-18

2002-04-18 ER: US 60/284,770

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Sequence 3006, Application US/60443566
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTI
FILE REFERENCE: CL001447
CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEC ID NO 3006
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-60-443-566-3006
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US-60-443-566-3006
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; ORGANISM: Homo sapiens
US-10-126-052A-263
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PRIOR FILING DATE: 2001-11-09
PRIOR PPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR FILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2002-04-12
                                                                                                                                                                                           Sequence 4692, Application US/60455444 GENERAL INFORMATION:
NUMBER OF SEQ ID NOS: 50986
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4692
                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                             APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETI
FILE REFERENCE: CL001455
                                                         CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 691
SOFTWARE: Patentin Ver. 2.1
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nes 9; Conserv
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Similarity 100.0%;
9; Conservative 0
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Pred. No.
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1 QYLRALGLK 9

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TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated (FILE REFERENCE: 38-2153221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEO ID NOS: 204966
SEO ID NO 150051
LENGTH: 730
TYPE: PPT
                                                                ; OTHER INFORMATION: Clone ID: PAT_MRT4530_50323C.1.pep US-10-437-963-150051
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; ORGANISM: Homo sapiens
US-60-455-444-4692
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETE
FILE REFERBNCE: CL001468
CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4692
                                                                                                                                                                                                                                                                                                                                          Sequence 150051, Application US/10437963
GENERAL INFORMATION:
APPLICANT: LA ROSA, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
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GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                Query Match
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Best Local
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Best Local :
                                                                                              ORGANISM: Oryza sativa FEATURE:
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TYPE: PRT
Local Similarity nes 7; Conserv
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Local Similarity 100.0%;
nes 9; Conservative 0
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289 QYLRALGLK 297
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9; Conservative
   Conservative
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                81.8%;
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Score 36; DB 12; Length 730; Pred. No. 96; 1; Indels
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Pred. No. 1;
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RESULT 9
US-10-282-122A-47577
; Sequence 47577, Application US/10282122A
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Best Local Similarity
Matches 6; Conserv
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Best Local !
                                                                                                                                                                                                                                                                                                    SEQ ID NO 8700
LENGTH: 337
                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Goldman, Barry S.
APPLICANT: Goldman, Barry S.
APPLICANT: Chen, Xlanfeng
TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
FILE REFERENCE: 38-10(52052)B
CURRENT APPLICATION NUMBER: US/10/369,493
CURRENT FILING DATE: 2003-02-28
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                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/360,039
PRIOR FILING DATE: 2002-02-21
NUMBER OF SEQ ID NOS: 47374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Cao, APPLICANT: Hin)
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equence 117663, A
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                                                                                                                                                                                                                                                                                    TYPE: PRT
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ORGANISM: Oryza sativa
                                                                                                                                                                    Local Similarity 66. 
es 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yongwei
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                                                                                                                                                                                       77.3%;
66.7%;
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                                                                                                                                                                                       Score 34;
Pred. No.
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Pred. No.
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US-10-282-122A-47577
                                                                                                                                                                                                                                                                                                  US-10-369-493-20450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn version SEQ ID NO 47577
                                                                                                                                                                                                                                                             Sequence 20450, Application US/10369493 GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                     TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES FILE REFERENCE: 38-10(52052)B
CURRENT APPLICATION NUMBER: US/10/369,493
CURRENT FILING DATE: 2003-02-28
CURRENT FILING DATE: 2003-02-28
                   PRIOR APPLICATION NUMBER: US 60/360,039 PRIOR FILING DATE: 2002-02-21 NUMBER OF SEQ ID NOS: 47374
                                                                                                                                                                                                                        APPLICANT: Cao, Yongwei APPLICANT: Hinkle, Gre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/206,848
PRIOR FILING DATE: 2000-05-23
PRIOR APPLICATION NUMBER: 60/207,727
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/230,335
PRIOR FILING DATE: 2000-09-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Identification of Essential Genes in Microorganisms FILE REFERENCE: ELITAA.034A CURRENT APPLICATION NUMBER: US/10/282,122A CURRENT FILING DATE: 2003-02-20
                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Remaining Prior Application data removed - See File Wrapper or PALM NUMBER OF SEQ ID NOS: 78614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/269,308 PRIOR FILING DATE: 2001-02-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/191,078 PRIOR FILING DATE: 2000-03-21
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   ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 66.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 2000-11-27
APPLICATION NUMBER: 60/257,931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/267,636 FILING DATE: 2001-02-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 2000-12-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/253,625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2000-10-
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 2000-09-09
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                                                                                                                                                                Hinkle, Gregory J.
Slater, Steven C.
Goldman, Barry S.
Chen, Xianfeng
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Forsyth, R.
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Malone, Cheryl
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66.7%;
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Pred. No.
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Length 282; Indels

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Clone ID: PAT_MRT4530_187C.1.pep US-10-437-963-115178
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US-10-425-114-60805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE REFERENCE: 38-21(53221)B CURRENT APPLICATION NUMBER: US/10/437,963 CURRENT FILING DATE: 2003-05-14 NUMBER OF SEQ ID NO 115178
SEQ ID NO 115178
LENGTH: 582
                                                                                       NUMBER OF SEQ ID NOS:
SEQ ID NO 60805
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Best Local
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APPLICANT:
APPLICANT:
                                                                                                                  TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
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                              FEATURE:
                                           ORGANISM: Zea mays
                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Oryza sativa
           OTHER INFORMATION: Clone ID: LIB3356-048-F4_FLI.pep
                                                                       ENGTH:
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nes 6; Conserv
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nes 7; Conserv
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Kovalic, David K.
Zhou, Yihua
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87.5%;
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Pred. No. 2.9e
0; Mismatches
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Pred. No. 3.1e+02;
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2.9e+02;
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...rLICANT: LOU, Yihua

APPLICANT: Kovalic, David K.

APPLICANT: Screen, Steven E

APPLICANT: Tabaska, Jack E

APPLICANT: Cao, Yongwei

TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

FILE REFERENCE: 38-21(53313)B

CURRENT APPLICATION NUMBER: US/10/425,114

CURRENT FILING DATE: 2003-04-28

NUMBER OF SEQ ID NOS: 73128

SEQ ID NO 60833

LENGTH: 150

TYPE: pn.
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...ruICANT: Kovalic, David K.
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 59319
LENGTH: 127
TYPE: no.
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                                                                                          ; FEATURE:
; OTHER INFORMATION: Clone ID: LIB3354-105-E8_FLI.pep
US-10-425-114-60833
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                           Query Match
Best Local Similarity
Matches 7; Conserv
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Best Local :
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7; Conservi
    3 LRALGLK 9
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                                                 Score 32;
Pred. No.
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Pred. No.
                                   Mismatches
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88
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RESULT 15
US-10-425-114-71125
US-10-425-114-71125
Sequence 71125, Application US/10425114
Sequence 71125, Application US/10425114
GEMERAL IMFORMATION:
APPLICANT: Lin, Jingdong
APPLICANT: Zhou, Yihau
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Cab, Yongwel
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
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TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules Acid Molecules
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Minimum DB
Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
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                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                    Score
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100.0
93.9
93.9
91.8
91.8
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204.833 Million cell updates/sec
                                                                                                                                                                                    Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 10.0 , Gapext 0.5
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADLSGIASGGRLYISRMMGK
                                                                                                                                                                                                                                                                                                                                                                                                                                /Cgn2_6/ptodata/1/paa/US084_COMB.pep:*
/Cgn2_6/ptodata/1/paa/US085_COMB.pep:*
/Cgn2_6/ptodata/1/paa/US086_COMB.pep:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/1/paa/PCTUS_COMB.pep:*
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/cgn2_6/ptodata/1/paa/US07_COMB.pep:*
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                                                                                                                                                                                    Length
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     5 US-09-140-719-6

4 US-10-091-442-6

US-08-091-028-6

US-08-091-028A-6

7 US-60-160-203-4173

7 US-60-188-162-4539
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Sequence 6, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 4173, Ap
Sequence 4539, Ap
                                                                                                                                                                              Description
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| 47<br>47                       | 47           | 47             | 47            | 47             | 48              | 48              | 50             | 50             | 50                 | 50                | . 50           | 51              | 51                         | 51               | 51              | 51               | 51             | 51               | 51              | 51               | 51              | 51               | 53             | 54             | 83            | 83              | 83            | 83             | 83          | 83          | 90           | 90          | 90              | 90             | 90             | 90               | 90                |
|--------------------------------|--------------|----------------|---------------|----------------|-----------------|-----------------|----------------|----------------|--------------------|-------------------|----------------|-----------------|----------------------------|------------------|-----------------|------------------|----------------|------------------|-----------------|------------------|-----------------|------------------|----------------|----------------|---------------|-----------------|---------------|----------------|-------------|-------------|--------------|-------------|-----------------|----------------|----------------|------------------|-------------------|
| 48.0<br>48.0                   | œ            |                |               |                | •               | •               |                | •              | •                  | 51.0              |                |                 | •                          |                  |                 | •                |                |                  | ٠               | •                | •               | •                |                | 55.1           |               | •               | •             | 84.7           |             |             | •            | •           |                 | •              | 91.8           | •                |                   |
| 394<br>395                     | 394          | 365            | 94            | 94             | 591             | 423             | 615            | 615            | 615                | 615               | 420            | 378             | 378                        | 306              | 306             | 306              | 210            | 210              | 210             | 210              | 210             | 125              | 405            | 191            | 380           | 380             | 380           | 368            | 368         | 368         | 380          | 380         | 380             | 380            | 380            | 380              | 380               |
| 1<br>22                        | -            | 24             | 27            | 27             | 21              | 24              | 26             | 21             | 20                 | _                 | 24             | 24              | 21                         | 26               | 26              | 21               | 27             | 27               | 26              | 26               | 21              | 20               | 21             | 21             | 25            | 23              | 19            | 25             | 23          | 19          | 25           | 24          | 23              | 21             | 19             | 15               | 4                 |
| -US01-13360A-<br>-09-823-187-2 | T-US01-13    | -10-023-634-2  | -60-196-718-6 | 0-196-718-6010 | -09-791-537-1   | -10-023-634-8   | -10-221-278-3  | S-09-791-537-1 | S-09-629-469A-1276 | T-US01-04942A-356 | S-10-029-386-3 | -10-023-634-84  | S-09-791-53 <b>7-</b> 4585 | -10-219-999-5487 | -10-219-999-544 | -09-708-427-5302 | 0-324-109-2876 | -60-312-544-9910 | -10-219-999-625 | -10-219-999-4778 | -09-708-427-530 | -09-617-682A-303 | 9-791-537-9901 | -09-791-537-10 | -10-110-030-4 | -09-936-883A-   | S-09-508-997A | S-10-110-030-6 | -09-936-883 | 9-508-997A- | -10-110-030- | ພ           | -09-936-8       | 8-09-791-537-2 | S-09-508-997A- | US-09-140-719-34 | 8A-3              |
| equence 59,<br>Sequence 2,     | quence 59, A | equence 20, Ap | equence 6011, | equence 6010,  | equence 132657, | equence 83, App | equence 356, A | e 1121         | ce 12768,          | quence 356, App   | equence 32104, | equence 84, App | equence 45859,             | equence 5487     | equence!        | equence 5302     | 2876           | equence 9910,    | equence 62585,  | equence 47784,   | 5302            | equence 3038,    | 990            | e 102          | e<br>4,       | equence 19, App | equence 4,    | equence 6,     | 21          | equence 6,  | equence 2,   | equence 34, | equence 2, Appl | e 281, Ap      | e 2, Appl      | 6                | Sequence 34, Appl |

# ALIGNMENTS

RESULT 1 US-09-140-719-6 GENERAL INFORMATION: ADDRESSEE: Burns, Doane, Swecker & STREET: P.O. Box 1404
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ve APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT: CORRESPONDENCE ADDRESS: APPLICANT: YAMAGUCHI, NOZOMÍ
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34 APPLICANT: APPLICANT: APPLICANT: APPLICATION NUMBER: US/09/140,719 Application US/09140719 IWASA, Fuyuki TSUROUOKA, Nobuo NAKAZATO, Hiroshi MIURA, Kenju KURIHARA, Tatsuya YAMAICHI, Kozo TSUJIMOTO, Masafumi ISHIDA, Nobuhiro Swecker & Mathis Version #1.30

PRIOR APPLICATION DATA:

CLASSIFICATION:

APPLICATION NUMBER: FILING DATE: 07-JU

UMBER: US 08/474,661 07-JUN-1995

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RESULT 2
US-10-091-442-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TOPOLOGY: linear ; MOLECULE TYPE: peptide US-09-140-719-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 6, Application US/10091442 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: JP 6 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 20 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                             ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ADLSGIASGGRLYISRMMGK 20
                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                             CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADLSGIASGGRLYISRMMGK 20
                                                                                                                                                                                                                          COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                               ADDRESSEE: Burns, Doane, Swecker & Mathis STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                            KURIHARA, Tatsuya
YAMAICHI, Kozo
                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIURA, Kenju
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISHIDA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JP 6-067339
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Pred. No.
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STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO:
US-10-091-442-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local 9
                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (703) 836-2
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
TITLE OF IN
ATTORNEY/AGENT INFORMATION:
                               PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                  APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
                                                                                                                          CLASSIFICATION:
                                                                                                                                         APPLICATION NUMBER: FILING DATE: 14-JUI
                                                                                                                                                                                                                                                                                                                           CITY: Alexandria STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                        STREET:
                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:

NAME: McGowan, Malcolm K.

REGISTRATION NUMBER: 39,300

REFERENCE/DCCKET NUMBER: 001560-247

TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                      PRY: United States 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ch 100.0%; Score 98; DB 24; Similarity 100.0%; Pred. No. 1.4e-08; 20; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                              INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR F SEQUENCES: 33
                                                                                                                                                                                                                                                                                                                     Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/08091028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 20 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 17-JUL-1992
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                                                                                                                                                                                                                                                                                                                                                       E: Burns, Doane, Swe
George Mason Bldg.,
                                                                                                                                                                                                                                                                                                                                                                                                                                            KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NOZOMi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIURA, Kenju
ISHIDA, Nobuhiro
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NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IWASA, Fuyuka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TSUJIMOTO, Masafumi
                                                                                                                                         14-JUL-1993
                JMBER: JP 5-067339
04-MAR-1993
                                                                                                                                                           US/08/091,028
                                                                                       JP 4-212305
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                                                                                                                                                                                                                                                                                                                                                                           Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                        Washington & Prince Sts
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                                                                        TELEFAX: (703) 836-6620 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENERAL INFORMA
                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: George Mason Bidg., Washington & Prince Sts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
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                                        SEQUENCE CHARACTERISTICS:
LENGTH: 20 amino acids
                                                                                                      TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                                             FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 36, REFERENCE/DOCKET NUMBER:
              LENGTH: 20 amino acids TYPE: amino acid STRANDEDNESS: single
                                                                                                                                    NAME: REA, TERESA STANEK
REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/091,028A
                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                     22313-1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ISHIDA, Nobuhiro
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linear
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           single
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Pred. No. 1.4e-07
0; Mismatches
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RESULT 6
US-60-188-162-4539
; Sequence 4539, Applica
; GENERAL INFORMATION:
; APPLICANT: Beasley,
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                                                                                                           ; ORGANISM: HUMAN US-60-188-162-4539
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                                                                                                                                                              NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 4539
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 4173
LENGTH: 78
TYPE: PRT
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Best Local Similarity
Matches 19; Conserv
                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                               Query Match
                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/60/188,162
CURRENT FILING DATE: 2000-05-09
                                                                                                                                                                                                                                                TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/60/160,203
CURRENT FILING DATE: 1999-10-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: ISOLATED HUMITITLE OF INVENTION: NUCLEIC ACID TITLE OF INVENTION: USES THEREOF
                                                                                                                                                                                                                                     FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: CL000116
                                                                                                                                      LENGTH: 11
TYPE: PRT
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                                                    Local Similarity
les 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 19; Conserv
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58 ADLSGIASGGRLYISRMMHK 77
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              1 ADLSGIASGGRLYISRMMGK 20
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1 ADLSGIASGGRLYISRMXGK 20
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                                                                                                                                                                               FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                           Beasley, Ellen
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                                                    Conservative
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                                                                                                                                                                                                                                                                ISOLATED HUMAN SECRETED PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS,
                                                                                                                                                                                                                                                   USES THEREOF
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95.0%;
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Pred. No.
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Pred. No. 1.
                                                                 Score 90; I
Pred. No. 2.
                                                     Mismatches
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1.5e-06;
                                                                                 DB 27;
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                                                                 .4e-06;
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                                                                              Length 118;
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RESULT 7
US-08-091-028A-34
; Sequence 34, Application US/08091028A
; GENERAL INFORMATION:
; GENERAL INFORMATION:

PPLICANT:

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US-09-140-719-34
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                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION UNMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                    CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: George Mason Bldg., Washington & Prince Sts.
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                                  TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Alexandria
STATE: Virginia
 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                  305 ADLSGIASGGRLYISRMMHK 324
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19; Conserv
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                                                                                                                                                     TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                      MIURA, Kenju
                                                                 YAMAGUCHI, Nozomi
                                                                                   KURIHARA, Tatsuya
YAMAICHI, Kozo
                                                                                                                                                                                         IWASA, Fuyuki
                                                                                                                                                                                                           TSUJIMOTO, Masafumi
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IWASA, Fuyuki
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                                                                                                                        SHIDA, Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
Burns, Doane, Swecker & Mathis
                  ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                    91.8%; Score 90; DB 4; 95.0%; Pred. No. 9.3e-06;
                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4; Length 380;
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; LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-508-997A-2
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US-09-508-997A-2
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Best Local S
Matches 19
                                                                    FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO. 20
                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: Megsin Protein
                                                                                                                                                                                                                                                                                                Sequence 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UNARRY. US/08/1/0 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION
                                                                                                                                                                                                                                                                                                                                                                                             305 ADLSGIASGGRLYISRMMHK 324
                                                                                                                                                                                                                                                                                                                                                                                                                 1 ADLSGIASGGRLYISRMMGK 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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: Virginia
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                                                                                                                                                                                                                                                                                            Application US/09508997A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 90; DB 15;
Pred. No. 9.3e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 380;
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Best Local Similarity Matches 19; Conserv

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91.8%; 95.0%;

Score 90; DB 19; Pred. No. 9.3e-06;

Length 380 Indels

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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-791-537-281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-09-791-537-281
                                                                                                             RESULT 12
US-10-091-442-34
                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                          ; LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-936-883A-2
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US-09-936-883A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: Patentin version 3.0
SEQ ID NO 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2, Application US/09936883A
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and ITILE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883A
CURRENT FILING DATE: 2001-12-21
                                                                           Sequence 34, Application US/10091442 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: 1
SEQ ID NO 2
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                                                                                                                                                                                                                                                           Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-03-19 PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBE
TITLE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Blonomix, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                             APPLICANT:
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                                                       TSUJIMOTO, Masafumi
     IWASA, Fuyuki
TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91.8%;
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95.0%;
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Pred. No.
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Pred. No.
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9.3e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                ; MOLECULE TYPE: protein ; SEQUENCE DESCRIPTION: SEQ ID NO: US-10-091-442-34
                                                                                                                                                                                                                    RESULT 13
US-10-110-030-2
                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                  Sequence
CURRENT APPLICATION NUMBER: US/10/110,030 CURRENT FILING DATE: 2002-04-03 PRIOR APPLICATION NUMBER: 11/285736 PRIOR ELING DATE: 1999-10-06 NUMBER OF SEQ ID NOS: 15 SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                           TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                         305 ADLSGIASGGRLYISRMMHK 324
                                                                                                                                                                                                    Application US/10110030
                                                                                                                                                                                                                                                                                                                                                             19;
                                                                                                                                                                                                                                                                                                                            1 ADLSGIASGGRLYISRMMGK 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: UP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-WAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KURIHARA, Tatsuya
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISHIDA, Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                              91.8%;
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Pred. No. 9
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9.3e-06;
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Gaps

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TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DPIPCT
CURRENT APPLICATION NUMBER: US/09/936,883A
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR APPLICATION NUMBER: JP 1999-306623
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 21
LENGTH: 368
TYPE: PRT
ORGANISM: Mus musculus
US-09-936-883A-21
                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
US-09-936-883A-21
; Sequence 21, Application US/09936883A
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 6, Application US/09508997A
GENERAL INFORMATION:
APPLICANT: MIYATA, TOShio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
UNMBER OF SEO ID NOS: 44
SOFTWARE: Patentin Ver. 2.0
SEO ID NO 6
SEO ID NO 6
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TYPE: PRT
ORGANISM: Mus musculus
US-09-508-997A-6
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US-09-508-997A-6
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; LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-110-030-2
                                                                         Matches
                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 84.7%;
Best Local Similarity 80.0%;
Matches 16; Conservative
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Best Local Similarity 95.0
Matches 19; Conservative
                                                                     Match 84.7%; Score 83; DB 23; Local Similarity 80.0%; Pred. No. 0.00013; les 16; Conservative 3; Mismatches 1
91.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 83; DB 19;
Pred. No. 0.00013;
3; Mismatches 1
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Pred. No. 9.3e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                      DB 23; Length 368;
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                                                                     Indels
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Search completed: July 11, 2003, 12:27:34 Job time: 63.9522 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
      100
110
113
113
114
116
117
                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                         Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq
      Pending_Patents_AA_New:*

1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

2: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

3: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

4: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

5: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

7: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep4:*

9: /cgn2_6/ptodata/1/paa/US08_NEW_COMB.pep4:*

9: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

10: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

11: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

12: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

13: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

14: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*

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14: /cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep4:*
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Gapop 10.0 , Gapext 0.5
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) US-09-936-883C-2

; US-10-126-052A-263

; US-60-443-566-3006

; US-60-455-444-4692

4 US-60-465-241-4692

4 US-09-936-883C-21

0 US-09-936-883C-19

2 US-10-425-114-57272

2 US-10-425-114-59267

2 US-10-425-114-5936

12 US-10-258-951-59

2 PCT-US02-38526-4407

14 US-60-443-566-4407

15-60-443-566-4407

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            Sequence 2, Appli
Sequence 263, App
Sequence 4692, Ap
Sequence 4792, Ap
Sequence 21, Appli
Sequence 19, Appli
Sequence 57272, A
Sequence 5931, A
Sequence 5931, A
Sequence 5936, A
Sequence 4107, Ap
Sequence 4107, Ap
Sequence 4107, Ap
Sequence 408, App
Sequence 7462, Ap
Sequence 7462, Ap
Sequence 2, Appli
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| 45                   | 44                   | 43                   | 42                   | 41                  | 40                  | 39                  | 38                  | 37                  | 36                   | 35<br>5              | 34                   | 33                   | 32                | 31                  | 30                  | 29  | 28                  | 27                  | 26                | 25                 | 24                  | 23                 | 22                 | 21                 | 20                   |
|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|-------------------|---------------------|---------------------|-----|---------------------|---------------------|-------------------|--------------------|---------------------|--------------------|--------------------|--------------------|----------------------|
| 45                   | 45                   | 45                   | 45                   | 45                  | 45                  | 45                  | <b>4</b> 5          | 45                  | 45                   | 45                   | 45                   | 45                   | 45                | 45                  | 45                  | 45  | 45                  | 45                  | 46                | 46                 | 46                  | 47                 | 47                 | 47                 | 47                   |
|                      |                      |                      | 45.9                 |                     |                     | 45.9                |                     |                     |                      |                      |                      |                      |                   |                     |                     |     |                     |                     |                   |                    |                     |                    | 48.0               |                    | 48.0                 |
| 406                  | 406                  | 406                  | 406                  | 406                 | 406                 | 406                 | 406                 | 406                 | 238                  | 238                  | 238                  | 238                  | 238               | 238                 | 238                 | 238 | 238                 | 238                 | 377               | 257                | 257                 | 617                | 425                | 425                | 425                  |
| 10                   | 10                   | 10                   | 10                   | 10                  | 10                  | 10                  | 10                  | 10                  | 10                   | 10                   | 10                   | 10                   | 10                | 10                  | 10                  | 10  | 10                  | 10                  | 12                | 12                 | N                   | N                  | 14                 | 14                 | 14                   |
| US-09-724-676A-67574 | US-09-724-676A-67573 | US-09-724-676A-67565 | US-09-724-676A-67564 | US-09-724-676-67575 | US-09-724-676-67574 | US-09-724-676-67573 | US-09-724-676-67565 | US-09-724-676-67564 | US-09-724-676A-67571 | US-09-724-676A-67570 | US-09-724-676A-67569 | US-09-724-676A-67568 |                   | US-09-724-676-67571 | US-09-724-676-67570 | •   | US-09-724-676-67568 | US-09-724-676-67567 | US-10-144-779-358 | US-10-320-797-3054 | PCT-US02-40225-3054 | PCT-US02-38526-415 | US-60-465-241-7461 | US-60-455-444-7461 | US-60-443-566-4406 · |
| Sequence 67574, A    | Sequence 67573, A    | Sequence 67565, A    | •                    | Sequence 67575, A   | •                   | Sequence 67573, A   | •                   | Sequence 67564, A   | Sequence 67571, A    | Sequence 67570, A    | Sequence 67569, A    | Sequence 67568, A    | Sequence 67567, A | Sequence 67571, A   | Sequence 67570, A   |     | Sequence 67568, A   | Sequence 67567, A   |                   |                    | Sequence 3054, Ap   | Sequence 415, App  | •                  | Sequence 7461, Ap  | Sequence 4406, Ap    |

# ALIGNMENTS

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RESULT 2
US-10-126-052A-263
(Sequence 263, Application US/10126052A
; Sequence 263, Application US/10126052A
; GENERAL INFORMATION:
; APPLICANT: Murray, Richard
; APPLICANT: Eos Biotechnology, Inc.
; TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
; TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
; FILE REFERENCE: 018501-001530US
; CURRENT APPLICATION NUMBER: US/10/126,052A
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Matches 19
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APPLICANT: MIYATA, TOSHIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: A Method for Detecting Megsin Protein TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DF1PCT CURRENT APPLICATION NUMBER: US/09/936,883C CURRENT FILING DATE: 2001-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-03-19 PRIOR APPLICATION NUMBER: JP
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NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 380
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1.3e-06;
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US-60-455-444-4692
Sequence 4692, Application US/60455444
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-60-443-566-3006
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PRIOR FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 60/339,245
PRIOR FILING DATE: 2001-11-09
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR FILING DATE: 2001-11-29
PRIOR FILING DATE: 2001-11-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3006
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SEQ ID NO 4692
LENGTH: 380
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                                 NUMBER OF SEQ ID NOS: 50986
SOFTWARE: FastSEQ for Windo
                                                                      CURRENT FILING DATE: 2003-03-18
                                                                                                         APPLICANT: BEGOVICH, AND TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETIFILE REFERENCE: CL001455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: BEGOVICH, Ann TITLE OF INVENTION: GREETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: CARGILL, Michele APPLICANT: BEGOVICH, Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/372,246 PRIOR FILING DATE: 2002-04-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 60/284,770 FILING DATE: 2001-04-18
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1 Similarity 95.0%;
19; Conservation
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95.0%;
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; Pred. No. 1.3e
0; Mismatches
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1.3e-06;
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Best Local Similarity
Thes 19; Conserve
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US-09-936-883C-21
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US-60-465-241-4692
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                                                                                                                                                                                     SOFTWARE: Pat.
SEQ ID NO 21
LENGTH: 368
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APPLICANT: MIYATA, Toshio
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SEQ ID NO 4692
LENGTH: 380
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Best Local S
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GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                                                   Matches
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                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: JP PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21
                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: A Method for Detecting Megsin Protein and TITLE OF INVENTION: Thereof
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: BEGOVICH, Ann TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001468
                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: F2-101DP1PCT
                                                                                                                                                                       TYPE: PRT
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293 ADLSGIASGGRLYVSKLMHK 312
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16; Conserv
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Pred. No. 1.3e
0; Mismatches
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                                                                Score 83; DB 10;
Pred. No. 1.9e-05;
3; Mismatches 1;
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RESULT

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Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwel
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT FILIKO DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 57272
LENGTH: 233
TYPE: PRT
ORGANTER
                                   RESULT 9
US-10-425-114-68267
Convence 68267, Ap
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US-10-425-114-57272
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                         Sequence 68267, Appl GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: A Method for Detecting Megsin Protein and TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT
APPLICANT:
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LOCATION: 51, 94
OTHER INFORMATION: Xaa is unknown.
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TYPE: PRT
ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                 Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   305 ADLSGIASGGRLYVSKLMHK 324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16;
                                                                                                                                      1 ADLSGIASGGRLYISRM 17
                                                                                                                                                                                 Similarity 64.
Zhou, Yihua
                                                                                                                      AGLSGIESGTKLYISNL 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                           Application US/10425114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.78;
                                                                                                                                                                                             52.0%;
                                                                                                                                                                               Score 51; DB
Pred. No. 2.9;
2; Mismatches
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Pred. No. 2e-05;
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                                                                                                                                                                                               DB 12;
2.9;
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                                                                                                                                                                                                             Length 233;
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; ORGANISM: Zea mays
; FEATURE:
; OTHER INFORMATION: Clone ID:
US-10-425-114-68267
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LENGTH: 306
TYPE: PRT
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LENGTH: 233
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Best Local Similarity
PPLICANT: Zhou, Yihua
PPLICANT: Sovalic, David K.
APPLICANT: Kovalic, David K.
APPLICANT: Screen, Steven E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
TRIPLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
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Best Local 9
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TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
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APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT EPPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
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TYPE: PRT
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27 AGLSGIESGTKLYISNL 43
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Screen, Steven E
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Pred. No.
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Pred. No. 2
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2.9;
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Query Match
Best Local Similarity
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CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 59936
LENGTH: 306
TYPE: PRT
ORGANISM: Zea mays
FEATURE:
                                                                                            Sequence 416, Application PC/TUS0238526 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version SEQ ID NO 59
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Best Local Similarity
                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT FILING DATE: 2002-10-28
PRIOR APPLICATION NUMBER: PCT/US01/13360
PRIOR FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: 60/199,963
PRIOR FILING DATE: 2000-04-27
PRIOR FILING DATE: 2000-04-27
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                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER:
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CURRENT FILING DATE: 2002-10-28
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FITLE OF INVENTION: NOVEL COMPOUNDS
FILE REFERENCE: GP50025
                                                APPLICANT:
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                                                                              PPLICANT: Ghosh,
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                                                                                                                                                                                                                                                                                                                                                                  ENGTH: 394
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FILING DATE: 2000-05-11
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                                                                                                                                                                                         317 ADLTGISPSPNLYLSKIIHK 336
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Smith, Randall F.
Xu, Chongjun
                 Zhao,
                             Wang, Zhiwei
                                               Wang, Jian-Rui
                                                             Tang, Y. Tom
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64.7%;
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Pred. No.
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US-60-443-566-4407
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                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4407
LENGTH: 405
TYPE: PRT
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APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                                                       Matches
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SEQ ID NO 416
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                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETILE REFERENCE: CL001447
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PRIOR APPLICATION WATER
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PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: PCT/US00/35017
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PRIOR APPLICATION NUMBER: US 09/488,725
PRIOR FILING DATE: 2000-01-21
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CURRENT FILING DATE: 2002-12-03
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
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328
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ADLTGISPSPNLYLSKIIHK 347
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Boyle, Bryan J.
                                                                       Conservative
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NIMBER: PCT/US01/04098
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                                                                                          Pred. No.
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27;
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RESULT 15

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US-60-455-444-7462

Sequence 7462, Application US/60455444

GENERAL INFORMATION:

APPLICANT: CARGILL, Michele
APPLICANT: BECOVICH, AND

TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH

TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001455

CURRENT FILING DATE: 2003-03-18

NUMBER OF SEQ ID NO.5: 50986

SOFTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO.7462

US-60-455-444-7462
Search completed: July 11, 2003, 12:35:10 Job time : 19.8942 secs
                                                                                                                                                                                                   Query Match 48.0%; Score 47; DB 14; Length 405; Best Local Similarity 45.0%; Pred. No. 27; Matches 9; Conservative 6; Mismatches 5; Indels
                                                                                                     1 ADLSGIASGGRLYISRMMGK 20
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328 ADLTGISPSPNLYLSKIIHK 347
                                                                                                                                                                                                     Gaps
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Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - protein search, using sw model
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                                                                                                                                                                                                                                                                                                                                                               Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                         Score
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26
1 LYDAK 5
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Listing first 45 summaries
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         US-08-091-028-7

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Sequence 7, Appli
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Sequence 7, Appli
Sequence 3839, Appli
Sequence 99, Appli
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| 44                                     | 3               | 42             | 41              | 40          | 39                | კ<br>8           | 37              | 36              | ω<br>5          | 34              | S<br>S          | 32                | 31               | 30                | 29               | 28              | 27              | 26      | 25              | 24                | 23           | 22           | 21              | 20           | 19             | 18                | 17               | 16                        | 15               | 14               | 13               | 12               | 11              | 10               | 9                | 8              | 7                 |
|----------------------------------------|-----------------|----------------|-----------------|-------------|-------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|-------------------|------------------|-----------------|-----------------|---------|-----------------|-------------------|--------------|--------------|-----------------|--------------|----------------|-------------------|------------------|---------------------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|----------------|-------------------|
| 26<br>26                               | 26              | 26             | 26              | 26          | 26                | 26               | 26              | 26              | 26              | 26              | 26              | 26                | 26               | 26                | 26               | 26              | 26              | 26      | 26              | 26                | 26           | 26           | 26              | 26           | 26             | 26                | 26               | 26                        | 26               | 26               | 26               | 26               | 26              | 26               | 26               | 26             | 26                |
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| 282<br>291                             | 282             | 281            | 263             | 263         | 263               | 227              | 221             | 221             | 216             | . 215           | 214             | 212               | 211              | 209               | 199              | 196             | 171             | 167     | 155             | 155               | 151          | 151          | 133             | 118          | 118            | 118               | 118              | 117                       | 114              | 99               | 99               | 81               | 76              | 76               | 75               | 75             | 58                |
| 26                                     | 21              | 21             | 20              | 19          | 19                | 20               | 16              | 16              | 19              | 27              | 27              | ۳                 | 20               | 27                | 21               | 12              | 20              | 20      | 20              | 19                | 20           | 19           | 24              | _            | Ъ              | <b>—</b>          | <b>-</b>         | 21                        | 27               | 27               | 27               | 19               | 26              | 21               | 27               | 27             | 21                |
|                                        | -09-739-449-892 | -09-791-537-11 | -09-689-980-341 | -09-513-996 | -09-513-996A-2970 | -09-611-529-4520 | -09-270-849B-18 | -09-270-767-574 | -09-540-209B-59 | -60-167-217-876 | -60-140-956-158 | T-US01-08631-5518 | S-09-675-784A-72 | -60-360-039-17822 | -09-791-537-1473 | -08-827-356-291 | -09-614-450-501 | -09-61  | -09-688-051-891 |                   | -09-68       | -09-51       | -10-015-127-976 | T-US00-0     | -US00-07661-16 | -US00-07661       | T-US00-07661-169 | S-09-791-537 <b>-</b> 713 | S-60-162-247-325 | S-60-163-123-129 | S-60-160-203-396 | S-09-540-209B-73 | S-10-235-953-36 | S-09-758-471-366 | S-60-163-062-871 | -60-160-209-28 | 7-892A-           |
| Sequence 8924, Ap<br>Sequence 47475, A | uence 8924,     | 11542          | equence 341, Ap | 46566,      | e 2970            | equence 4520,    | equence 182     | equence 57481,  | equence 5974    | 8763,           | e 1585          | quence 55189,     | equence 7278,    | equence 17822,    | equence 147392   | equence 2912,   | equence 5013,   | equence | equence 891,    | Sequence 33704, A | equence 892, | equence 3370 | Sequence 9763,  | equence 171, | equence 169,   | Sequence 171, App | equence 169, Ar  | equence                   | equence 3259,    | equence 1299,    | 3968,            | 7383,            | e 3660,         | e 3660,          | 871,             | equence 2854,  | Sequence 99, Appl |

### ALIGNMENTS

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RESULT 1
US-08-091-028-7
IS-08-091-028-7
Sequence 7, Application US/08091028
GENERAL INFORMATION:
APPLICANT: TSUJINOTO, Masafumi
APPLICANT: IWASA, FUYUK1
APPLICANT: IWASA, FUYUK1
APPLICANT: MIURA, KODUO
APPLICANT: MIURA, KENJU
APPLICANT: MIURA, KENJU
APPLICANT: YAMAGUCHI, NOZOM1
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
UMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: George Mason Bldg., Washington & Prince Sts.
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
COMPUTER: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/08/091,028
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PRIOR APPLICATION DATA:

JP 4-212305

CLASSIFICATION:

14-JUL-1993 N: 435

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (703) 836-6620 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 5
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
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               ATTORNEY/AGENT INFORMATION:
                                                              PRIOR APPLICATION DATA:
                                                                                                              PRIOR APPLICATION DATA:
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                              APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993
                                                                             APPLICATION NUMBER: JP 4: FILING DATE: 17-JUL-1992
                                                                                                                                            APPLICATION NUMBER: US/08/091,028A FILING DATE: 14-JUL-1993
                                                                                                                                                                                                              COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity les 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Crane-Feury, Sharon E REGISTRATION NUMBER: 36,113
                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                               MEDIUM TYPE:
                                                                                                                                                                                                                                                                               COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: JP 4 FILING DATE: 17-JUL-1992
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George Mason Bldg., Washington & Prince Sts.
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YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                           Floppy disk
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STANEK
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Query Match
Best Local Similarity
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                               FILING LANGE CLASSIFICATION:
CLASSIFICATION DATA:
PRIOR APPLICATION NUMBER: US 08/474,661
APPLICATION NUMBER: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSE: BUTTON: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                    APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
           TELEPHONE: (703) 836-6620
                                                                        FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 5 amino acids
                                                                                                                                                                                  PRIOR APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                           REFERENCE/DOCKET NUMBER:
                                                           REGISTRATION NUMBER:
                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                  APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
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                                                                     McGowan, Malcolm K.
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YAMAICHI, Kozo
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(703)
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                                                                                                                        JP 6-067339
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Pred. No. 4.2e+06;
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Best Local Similarity
""" heres 5; Conserve
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US-10-091-442-7
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                                                              INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 5 amino acids
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TOPOLOGY: 11
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                                                                                                                                                                                                                        APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-193
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane,
STREET: P.O. Box 1404
                                                                                                                                    REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
MOLECULE
                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <Unknown>
IOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
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                             TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                         NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,300
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STATE: Virginia
                                                                                                                     TELEFAX: (703)
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IWASA, Fuyuki
TSUROUOKA, Nobuo
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YAMAICHI, Kozo
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Pred. No.
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; OTHER INFORMATION: Xaa •
US-60-196-718-3839
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                                                                                                               ; ORGANISM: Staphylococcus aureus Bacteriophage 44 US-09-727-892-99
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SOFTWARE: FastSEQ for
SEQ ID NO 3839
LENGTH: 41
TYPE: PRT
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Best Local S
Matches 5
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SOFTWARE: PatentIn version
SEQ ID NO 99
LENGTH: 58
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                                                                   Query Match
Best Local Similarity
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Best Local
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TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/727,892 CURRENT FILING DATE: 2000-12-01
                                                                                                                                                                                                                                           TITLE OF INVENTION: DNA SEQUENCES FROM STAPHYLOCOCCUS AUREUS BACTERIOPHAGE 44 AHJD TITLE OF INVENTION: THAT ENCODE ANTI-MICROBIAL POLYPEPTIDES FILE REFERENCE: 073406-0302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/60/196,718
CURRENT FILING DATE: 2000-04-13
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                                                                                                                                                                                                                                                                                                                 APPLICANT: PELLETIER,
                                                                                                                                                                                                                                                                                                                             APPLICANT: Phagetech, Inc.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: VARIANT
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29 LYDAK 33
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ilarity 100.0%;
Conservative
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Pred. No.
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Pred.
                                                                    Score 26; DB 21;
Pred. No. 3.5e+02;
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Mismatches 0;
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                                                                                 Length 58;
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US-60-163-062-871
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; ORGANISM: HUMAN
US-60-160-209-2854
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US-60-160-209-2854
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; ORGANISM: Staphylococcus aureus Bacteriophage 44AHJD
US-09-727-892A-99
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US-09-727-892A-99
                                                                                                                                                          Sequence 871, Application US/60163062
GENERAL INFORMATION:
APPLICANT: Bonazzi, Vivien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 4646
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2854
LENGTH: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2854, Application US/60160209
GENERAL INFORMATION:
APPLICANT: BONAZZI, VIVIEN
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LENGTH: 58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: PELLETIER, JERRY
APPLICANT: GROS, PHILLIPPE
APPLICANT: DUBOW, MICHAEL
APPLICANT: DUBOW, MICHAEL
TITLE OF INVENTION: DNA SEQUENCES FROM STAPHYLOCOCCUS AUREUS
TITLE OF INVENTION: THAT ENCODE ANTI-MICROBIAL POLYPEPTIDES
FILE REFERENCE: 073406/0302
CURRENT FILING DATE: 2000-12-01
PRIOR APPLICATION NUMBER: 05/168,777
PRIOR APPLICATION NUMBER: 60/168,777
PRIOR APPLICATION NUMBER: 60/168,777
PRIOR FILING DATE: 1999-12-01
                  CURRENT APPLICATION NUMBER: US/60/163,062
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 1302
                                                                           TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTIENS AND USES TITLE OF INVENTION: THEREOF FILE REFERENCE: CL000134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/60/160,209 CURRENT FILING DATE: 1999-10-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTIENS AND USES TITLE OF INVENTION: THEREOF FILE REFERENCE: CL000113
NUMBER OF SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn version 3.0
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les 5; Conserv
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FastSEQ for Windows Version 4.0
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Pred. No. 3.5
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Pred. No.
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ches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                      Length 75;
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US-09-758-471-3660
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                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/235,953
CURRENT FILING DATE: 2002-09-12
PRIOR APPLICATION NUMBER: 09/758,471
PRIOR FILING DATE: 2001-01-11
PRIOR APPLICATION NUMBER: 60/179,065
PRIOR APPLICATION NUMBER: 60/180,628
PRIOR APPLICATION NUMBER: 60/180,628
PRIOR APPLICATION NUMBER: 60/180,628
PRIOR FILING DATE: 2000-02-04
NUMBER OF SEQ ID NOS: 5386
                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-235-953-3660
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GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PHOO2
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Best Local Similarity 1vv.
"`^+ches 5; Conservative
                                                                                                                                            SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 3660
LENGTH: 76
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SEQ ID NO 3660
LENGTH: 76
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Best Local Similarity
Matches 5; Conserv
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LENGTH: 75
                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3660, Application US/10235953 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/758,471 CURRENT FILING DATE: 2001-01-11 PRIOR APPLICATION NUMBER: 60/179,065 PRIOR FILING DATE: 2000-01-31
                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Nucleic Acids, Proteins, FILE REFERENCE: PH002C1N
                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Rosen et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/180,628
PRIOR FILING DATE: 2000-02-04
NUMBER OF SEQ ID NOS: 5386
                                                                                                                ORGANISM:
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                                100.0%; Score 26; DB 26; ilarity 100.0%; Pred. No. 4.6e+02; Conservative 0; Mismatches 0;
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Pred. No.
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Pred. No. 4.6e+02;
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                                   Indels
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APPLICANT: BONAZZI, VIVIEN

APPLICANT: BONAZZI, VIVIEN

TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,

TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN

TITLE OF INVENTION: USES THEREOF

FILE REFERENCE: CLU00116

CURRENT APPLICATION NUMBER: US/60/160,203

CURRENT FILING DATE: 1999-10-19

NUMBER OF SEQ ID NOS: 6374

SOFTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO 3968

LENGTH: 99

TYPE: PRT

ORGANISM: HUMAN

US-60-160-203-3968
Sequence 1299, Application US/60163123
GENERAL INFORMATION:
APPLICANT: Bonazzi, Vivien
TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMA
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: CL000137
CURRENT APPLICATION NUMBER: US/60/163,123
CURRENT FILING DATE: 1999-11-02
NUMBER OF SEQ ID NOS: 1986
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1299
LENGTH: 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: GATY L. Breton
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO BACTEROIDES FRA
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709.1001-001
CURRENT APPLICATION NUMBER: US/09/540,209B
CURRENT FILING DATE: 2000-04-04
NUMBER OF SEQ ID NOS: 10444
SEQ ID NO 7383
LENGTH: 81
TYPE: PRT
ORGANISM: B.fragilis
US-09-540-209B-7383
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US-09-540-209B-7383
; Sequence 7383, Application US/09540209B
; GENERAL INFORMATION:
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Best Local Similarity
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Pred. No. 6.1e+02;
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Pred. No. 5e+02;
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                                                                                                                                                     HUMAN SECRETED PROTEINS AND
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; TYPE: PRT
; ORGANISM: Human
US-60-163-123-1299
Search completed: July 11, Job time: 17.738 secs
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US-60-162-247-3259; Sequence 3259; A
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                                                                                                                                                                                     ; ORGANISM: Human US-60-162-247-3259
                                                                                                                          Best Loc
Matches
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CURRENT FILING DATE: 1999-10-29
NUMBER OF SEQ ID NOS: 5442
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3259
                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
APPLICANT: BONBEZI, VIVIEN
APPLICANT: BONBEZI, VIVIEN
TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS AND
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: CLOOOLZ7
FILE REFERENCE: CLOOOLZ7
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Best Local Similarity
Matches 5; Conserv
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                                                                                                                                                                                                                   LENGTH: 114
TYPE: PRT
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Pred. No. 6.1e+02;
); Mismatches 0;
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Pred. No. 7e+02;
; Mismatches
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Run on:
                                                                                                            protein search, using sw model
July 11, 2003, 11:55:27; Search time 4.69854 Seconds (without alignments) 280.699 Million cell updates/sec
                                                                                                                                                                                       GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
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Title: Perfect score: Scoring table: US-10-091-442-7 26 1 LYDAK 5

Searched: BLOSUM62 Gapop 10.0 , Gapext 0.5 1229476 seqs, 263775074 residues

Total number of hits satisfying chosen parameters: 1229476

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries Database

Pending\_Patents\_AA\_New:\*

1: /cgn2\_6/ptodata/1/paa/PCT\_NEW\_COMB.pep:\*

2: /cgn2\_6/ptodata/1/paa/PCT\_NEW\_COMB.pep4:\*

3: /cgn2\_6/ptodata/1/paa/US06\_NEW\_COMB.pep:\*

4: /cgn2\_6/ptodata/1/paa/US06\_NEW\_COMB.pep4:\*

5: /cgn2\_6/ptodata/1/paa/US07\_NEW\_COMB.pep4:\*

6: /cgn2\_6/ptodata/1/paa/US07\_NEW\_COMB.pep4:\*

7: /cgn2\_6/ptodata/1/paa/US08\_NEW\_COMB.pep:\*

8: /cgn2\_6/ptodata/1/paa/US08\_NEW\_COMB.pep:\*

9: /cgn2\_6/ptodata/1/paa/US09\_NEW\_COMB.pep:\*

10: /cgn2\_6/ptodata/1/paa/US09\_NEW\_COMB.pep:\*

11: /cgn2\_6/ptodata/1/paa/US09\_NEW\_COMB.pep4:\*

12: /cgn2\_6/ptodata/1/paa/US10\_NEW\_COMB.pep4:\*

13: /cgn2\_6/ptodata/1/paa/US10\_NEW\_COMB.pep4:\*

13: /cgn2\_6/ptodata/1/paa/US10\_NEW\_COMB.pep4:\*

13: /cgn2\_6/ptodata/1/paa/US10\_NEW\_COMB.pep4:\*

13: /cgn2\_6/ptodata/1/paa/US10\_NEW\_COMB.pep1:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

/cgn2\_6/ptodata/1/paa/US60\_NEW\_COMB.pep4:\*

#### SUMMARIES

| Result | Score | Query<br>Match | Length | DB | ID                   | Description       |
|--------|-------|----------------|--------|----|----------------------|-------------------|
| 1      | 26    | 100.0          | 209    | 12 | US-10-369-493-17822  | Sequence 17822, A |
| 2      | 26    | 100.0          | 211    | 10 | US-09-675-784A-7278  |                   |
| ω      | 26    | 100.0          | 213    | 12 | US-10-437-963-115384 | Sequence 115384,  |
| 4      | 26    | 100.0          | 227    | 10 | US-09-950-084-4520   | Sequence 4520, Ap |
| ហ      | 26    | 100.0          | 253    | 12 | US-10-282-122A-60526 | Ÿ                 |
| თ      | 26    | 100.0          | 257    | 12 | US-10-424-599-219617 | Sequence 219617,  |
| 7      | 26    | 100.0          | 265    | 12 | US-10-437-963-144912 | Sequence 144912,  |
| 8      | 26    | 100.0          | 291    | 12 | US-10-425-114-55804  | Sequence 55804, A |
| 9      | 26    | 100.0          | 319    | 12 | US-10-454-437-98     | Sequence 98, Appl |
| 10     | 26    | 100.0          | 333    | 10 | US-09-724-676-56008  | Sequence 56008, A |
| 11     | 26    | 100.0          | 333    | 10 | US-09-724-676A-56008 | Sequence 56008, A |
| 12     | 26    | 100.0          | 345    | 12 | US-10-366-683-21042  | Sequence 21042, A |
| 13     | 26    | 100.0          | 345    | 12 | US-10-419-128-21042  | Sequence 21042, A |
| 14     | 26    | 100.0          | 380    | 10 | US-09-936-883C-2     | Sequence 2, Appli |
| 15     | 26    | 100.0          | 380    | 12 | US-10-126-052A-263   | Sequence 263, App |
| 16     | 26    | 100.0          | 380    | 14 | US-60-443-566-3006   | Sequence 3006, Ap |
| 17     | 26    | 100.0          | 380    | 14 | US-60-455-444-4692   | Sequence 4692, Ap |
| 18     | 26    | 100.0          | 380    | 14 | US-60-465-241-4692   | Sequence 4692, Ap |
| 19     | 26    | 100.0          | 395    | 12 | US-10-282-122A-48743 | Sequence 48743, A |
|        |       |                |        |    |                      |                   |

| 45                  | 44                 | 43                   | 42       | 41                   | 40                  | 39                  | 38                  | 37                  | 36       | 35                 | 34                  | ω<br>ω             | 32                  | 31                | 30                   | 29                | 28                 | 27                | 26                  | 25                | 24                  | 23               | 22                 | 21                  |  |
|---------------------|--------------------|----------------------|----------|----------------------|---------------------|---------------------|---------------------|---------------------|----------|--------------------|---------------------|--------------------|---------------------|-------------------|----------------------|-------------------|--------------------|-------------------|---------------------|-------------------|---------------------|------------------|--------------------|---------------------|--|
| 26                  | 26                 | 26                   | 26       | 26                   | 26                  | 26                  | 26                  | 26                  | 26       | 26                 | 26                  | 26                 | 26                  | 26                | 26                   | 26                | 26                 | 26                | 26                  | 26                | 26                  | 26               | 26                 | 26                  |  |
| 100.0               |                    |                      | 100.0    |                      |                     |                     |                     |                     | 100.0    | •                  | 100.0               |                    | ٠                   |                   |                      | 100.0             |                    |                   | 100.0               |                   |                     |                  | 100.0              | 100.0               |  |
| 712                 | 707                | 692                  | 625      | 597                  | 588                 | 588                 | 587                 | 574                 | 567      | 559                | 558                 | 529                | 524                 | 521               | 516                  | 496               | 491                | 489               | 458                 | 454               | 430                 | 427              | 415                | 415                 |  |
| 12                  | 12                 | 12                   | 12       | 12                   | 12                  | 12                  | 12                  | 12                  | 12       | 12                 | 12                  | 12                 | 12                  | 12                | 12                   | 12                | 12                 |                   | 12                  | 12                | 12                  | 12               | 12                 | 10                  |  |
| US-10-156-761-15026 | US-10-156-761-7899 | US-10-282-122A-72270 |          | US-10-282-122A-62084 | US-10-419-128-24185 | US-10-366-683-24185 | US-10-369-493-19378 | US-10-369-493-23086 | -761     | US-10-431-652-5252 | US-10-369-493-10997 | US-10-431-652-6406 | US-10-369-493-20966 | US-10-072-012-769 | US-10-437-963-190810 | US-10-072-012-771 | US-10-417-886-9542 | PCT-US02-38445-42 | US-10-446-203-11632 | US-10-310-154-660 | US-10-156-761-14800 | US-10-454-437-96 | US-10-434-665-3595 | US-09-134-000C-3595 |  |
| Seguence            | Sequence           | Sequence             | Sequence | Sequence             | Sequence            | Sequence            | Sequence            | Sequence            | Sequence | Sequence           | Sequence            | Sequence           | Sequence            | Sequence          | Sequence             | Sequence          | Sequence           | Seguence 4        | Sequence            | Sequence          | Ø                   | Sequence         | Sequence           | Sequence            |  |
| 15026, A            | •                  | 72270, A             | 58457, A | 62084, A             | 24185, A            | 24185, A            | 19378, A            | •                   | 7781, Ap |                    | •                   | 6406, Ap           | 20966, A            | 769, App          | 190810,              | 771, App          | 9542, Ap           | 42, Appl          | 11632, A            | 660, App          | 14800, A            | 96, Appl         | •                  | 3595, Ap            |  |

#### ALIGNMENTS

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RESULT 2
US-09-675-784A-7278
US-09-675-784A-7278
; Sequence 7278, Application US/09675784A
; GENERAL INFORMATION:
; APPLICANT: HARE, ROBERTA S.
; APPLICANT: SHAW, KAREN J.
; APPLICANT: SHIMER JR., GEORGE H.
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Best Local Similarity
Thehes 5; Conserve
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; ORGANISM: SPHINGOMONAS
US-10-369-493-17822
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US-10-369-493-17822
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PRIOR FILING DATE: 2002-02-21
NUMBER OF SEQ ID NOS: 47374
SEQ ID NO 17822
LENGTH: 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 17822, Application US/10369493 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Cao, Yongwei
APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Slater, Steven C.
APPLICANT: Goldman, Barry S.
APPLICANT: Chen, Xianfeng
TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
TITLE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES
FILE REFERENCE: 38-10(52052)8
CURRENT APPLICATION NUMBER: US/10/369,493
CURRENT FILING DATE: 2003-02-28
CURRENT FILING DATE: 2003-02-28
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                                                                                                                                                                                                                                                                                             1 LYDAK 5
KESSLER, MARCO
NOLLING, JORK
ZENG, QIANDONG
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Pred. No. 2.5e+02;
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Best Local Similarity
Watches 5; Conserva
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US-09-950-084-4520
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                                                                                                                                                                                                                                                                                                                                                                                                                              ; OTHER INFORMATION: Clone ID: PAT_MRT4530_18987C.1.pep
US-10-437-963-115384
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SEQ ID NO 7278
LENGTH: 211
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LENGTH: 213
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                                                                 APPLICANT: George H. Miller
APPLICANT: Roberta S. Hare
APPLICANT: Karen J. Shaw
TITLE OF INVENTION: Staphylococcus aureus Related Compositions
FILE REFERENCE: 1034/1C963US2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE REFERENCE: 38-21(5321)B CURRENT APPLICATION NUMBER: US/10/437,963 CURRENT FILING DATE: 2003-05-14
CURRENT APPLICATION NUMBER: US/09/950,084
CURRENT FILING DATE: 2001-09-10
PRIOR APPLICATION NUMBER: US 09/417,811
PRIOR FILING DATE: 1999-10-14
                                                                                                                                         APPLICANT:
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                                                                                                                                                        APPLICANT: George H. Shimer, Jr.
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TITLE OF INVENTION: ASPERGILLUS FUMIGATUS NUCLEIC ACIDS AND POLYPEPTIDES,
TITLE OF INVENTION: AND USES THEREFOR
FILE REFERENCE: 2976-4020US1
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                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhou,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Li, Ping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Barbazuk, Brad
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US-10-282-122A-60526; Sequence 60526; Ap
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NUMBER OF SEQ ID NOS: 7451
SEQ ID NO 4520
LENGTH: 227
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Best Local
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CURRENT APPLICATION NUMBER: US/10/282,122A
CURRENT FILING DATE: 2003-02-20
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR FILING DATE: 2000-03-21
PRIOR FILING DATE: 2000-03-21
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PRIOR
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PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/230,335
                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/206,848 PRIOR FILING DATE: 2000-05-23
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                                                                                                                                                                                                                                                                                                                                                              PPLICANT: Xu, H.
ITLE OF INVENTION: Identification of Essential
                                                                                                        FILING DATE: 2000-09 APPLICATION NUMBER:
                                                                                                                                            APPLICATION NUMBER: 60/230,347
                                                                                                                                                               FILING DATE: 2000-09-06
                                  FILING DATE: 2000-11-27
APPLICATION NUMBER: 60/257,931
                                                                    APPLICATION NUMBER: 60/253,625
                                                                                       FILING DATE: 2000-10-23
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                  FILING DATE:
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The, Cheryl
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Zyskind, Jud
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60/267,636
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Pred. No.
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SEQ ID NO 60526 LENGTH: 253

Remaining Prior Application data removed - NUMBER OF SEQ ID NOS: 78614
SOFTWARE: PatentIn version 3.1

See File Wrapper or PALM

PRIOR APPLICATION NUMBER: 60/269,308 PRIOR FILING DATE: 2001-02-16

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; OTHER INFORMATION: Clone ID: PAT_MRT3847_40342C.1.pep
US-10-424-599-219617
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APPLICANT: Kovalic David K
APPLICANT: Zhou Yihub
APPLICANT: Zhou Yihub
APPLICANT: Cao Yongwel
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 219617
LENGTH: 257
TYPE: PRT
                                                                                                                                                                                                                                                                                                                        Sequence 144912, Application US/10437963 GENERAL INFORMATION:
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                                                    SEQ ID NO 144912
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Best Local :
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                                                                 APPLICANT: L1, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53221)B
CURRENT FAPALICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
                                                                                                                                                                                                                                                 APPLICANT: La ROSA, Thomas J.
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Listeria monocytogenes
ORGANISM: Oryza sativa
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                                     ENGTH:
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les 5; Conserv
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Barbazuk, Brad
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Pred. No.
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Pred. No. 3.1e+02;
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Query Match
Best Local Similarity
Similarity
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; OTHER INFORMATION: Clone ID: PAT_MRT4530_45682C.1.pep
US-10-437-963-144912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Clone ID: UC-GMROPIC033E03_FLI.pep US-10-425-114-55804
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SEQ ID NO 55804
LENGTH: 291
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                               PRIOR APPLICATION NUMBER: US 60/141031
PRIOR FILING DATE: 1999-06-25
PRIOR APPLICATION NUMBER: DE 19931636.8
PRIOR FILING DATE: 1999-07-08
PRIOR APPLICATION NUMBER: DE 19932125.6
PRIOR FILING DATE: 1999-07-09
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TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
                                                                                                                                               FILE REFERENCE: BGI-128CPCN
CURRENT APPLICATION NUMBER: US/10/454,437
CURRENT FILING DATE: 2003-06-13
                                                                                                                                                                                                     APPLICANT: Pompejus, Markus
APPLICANT: Kroger, Burkhard
APPLICANT: Schroder, Hartwig
APPLICANT: Zelder, Oskar
APPLICANT: Zelder, Oskar
APPLICANT: Haberhauer, Gregor
TITLE OF INVENTION: INVOLVED IN HOMEOSTASIS AND ADAPTATION
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PRIOR APPLICATION NUMBER: DE 19932126.4 PRIOR FILING DATE: 1999-07-09
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OTHER INFORMATION: unsure at all Xaa locations
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Screen, Steven E
Tabaska, Jack E
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Pred. No. 3.1e+02;
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DE 19932127.2

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; ORGANISM: Homo sapiens US-09-724-676A-56008
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US-09-724-676-56008
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US-10-454-437-98
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LENGTH: 319
TYPE: PRT
                                                                                    NUMBER OF SEQ ID NOS: 97222
SOFTWARE: PatentIn version 3.2
SEQ ID NO 56008
LENGTH: 333
TYPE: PRT
Query Match
Best Local Similarity
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Best Local :
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                                                                                                                                                                        APPLICANT: Compugen LTD TITLE OF INVENTION: Variants of alternative splicing FILE REFERENCE: 129181.4 Compugen CURRENT APPLICATION NUMBER: US/09/724,676A CURRENT FILING DATE: 200-11-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Compugen LTD TITLE OF INVENTION: Variants of alternative splicing FILE REFERENCE: 129181.4 Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/724,676
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
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PRIOR APPLICATION NUMBER: DE 19932226.0
PRIOR FILING DATE: 1999-07-09
PRIOR APPLICATION NUMBER: DE 19932920.6
PRIOR FILING DATE: 1999-07-14
PRIOR APPLICATION NUMBER: DE 19932922.2
PRIOR FILING DATE: 1999-07-14
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APPLICATION NUMBER: DE 19932128.0
FILING DATE: 1999-07-09
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Pred. No.
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Pred. No.
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3.9e+02;
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Best Local S
Matches 5
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SEQ ID NO 21042
LENGTH: 345
TYPE: PRT
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APPLICANT: Rubenfield, Marc J.
                                                                 Matches
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Marc J. Rubenfield et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS
FILE REFERENCE: 107196.136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/10/366,683 CURRENT FILING DATE: 2003-02-13
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                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/094,190 PRIOR FILING DATE: 1998-07-27
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                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 33142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Nolling, Jork APPLICANT: Deloughery, C
                                                                                                                                                  ORGANISM:
                                                                                                                                                                                   LENGTH: 345
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331 LYDAK 335
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Pred. No.
                                                                 Mismatches
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RESULT 14 US-09-936-883C-2 ; Sequence 2, Application US/09936883C

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GENERAL INFORMATION:
APPLICANT: A21Z, Natasha
APPLICANT: Murray, Richard
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
FILE REFERENCE: 018501-001530US
CURRENT EILING DATE: 2002-04-18
PRIOR FILLING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: US 60/294,770
PRIOR FILLING DATE: 2001-04-18
PRIOR FILLING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 60/339,245
PRIOR FILLING DATE: 2001-11-13
PRIOR FILLING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR FILLING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR FILLING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/332,246
PRIOR FILLING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILLING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILLING DATE: 2001-04-12
SEO ID NO 263
LENGTH: 380
TYPE: PRT
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CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP 1999-306623
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 2
LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
US-09-936-883C-2
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US-10-126-052A-263
Sequence 263, Application US/10126052A
GENERAL INFORMATION:
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Search completed: July 11, 2003, 12:35:11 Job time: 5.79854 secs
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APPLICANT: MIYATA, Toshio
                                                                                                                                                                                               Matches
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                                                                                                                                                                                            Local Similarity
nes 5; Conserv
                                                                                                121 LYDAK 125
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100.0%; Pred. No. 4.4e+02;
vative 0; Mismatches 0;
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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Match
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  4 US-08-091-028-8
4 US-08-09-1028A-8
15 US-09-140-719-8
24 US-10-091-442-8
27 US-60-160-203-4173
27 US-60-188-162-4539
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Sequence 8, Appli
Sequence 8, Appli
Sequence 8, Appli
Sequence 8, Appli
Sequence 4173, Ap
Sequence 4539, Ap
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| 28                | 2 6               | 28           | 28               | 28            | 28               | 28                | 28               | 28                | 28               | 28            | 28              | 28                | 28              | 28               | 28                | 28            | 28             | 28             | 28             | 28             | 28            | 28               | 28              | 28                | 28            | 28                | 28           | 2 8              | 2 6              | ٠<br>د<br>د  | ۵ د<br>د د | 200         | 2 6         | 28            | 28        | 28                 |
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| 584               | 7 0 7             | 479          | 479              | 441           | 441              | 428               | 428              | 420               | 420              | 420           | 420             | 417               | 417             | 400              | 400               | 399           | 380            | 380            | 380            | 380            | 380           | 380              | 380             | 298               | 294           | 278               | 278          | 214              | 214              | 181          | 163        | 100         | 100         | 145           | 126       | 126                |
| 23                | ) k               | 2 22         | 19               | 21            | 19               | 21                | 19               | 21                | 21               | 19            | 19              | 26                | 21              | 27               | 16                | 24            | 25             | 24             | 23             | 21             | 19.           | 15               | 4               | 18                | 25            | 26                | 2 !          | 16               | 2 5              | 2 6          | ) L        | 2 6         | 2 5         | 17            | 27        | 20                 |
| -09-995-749A      | S-09-791-337-2243 | S-09-708-427 | -09-513-996A-373 | -708-427-1054 | -09-513-996A-373 | -09-708-427-10543 | -09-513-996A-373 | -09-791-537-13292 | -09-791-537-7916 | 09-509-234C-4 | -09-509-234A-41 | S-10-206-664-1893 | S-09-760-446A-1 | -60-096-409-1901 | S-09-248-796-1901 | -10-029-180-6 | S-10-110-030-2 | S-10-091-442-3 | -09-936-883A-2 | S-09-791-537-2 | -09-508-997A- | US-09-140        | -08-091-028A-34 | S-09-417-507-4069 | S-10-108-260A | S-10-206-664-1177 | -09-760-4462 | -09-252-6910-791 | -09-252-691-7915 | -09-675-7842 | -187       | 766-070-60- | 09-/31-8/2- | -09-328-352-  | -147-499- | US-09-621-976-5429 |
| Sequence 12, Appl | 6 Appl            |              | 37383,           | 10542,        | 37384,           | 10543,            | 37385,           | 1329              | 7916             | 41            | 41,             | 1893              | 1893,           | 19018            | 19018,            | 64. App       | 2              | 34             | 2              | 281, Ap        | equence 2,    | Sequence 34, App | quence 34, Ar   | equence 40692     | 4567          | 1177              | 1177         | 7915             | 7915             | 1007         | 607        | 2 4         | e 445,      | equence 6374, | O         | equence 542        |

# ALIGNMENTS

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NESULT 1

US-08-091-028-8

Sequence 8, Application US/08091028

GENERAL INFORMATION:
APPLICANT: TSUJIMOTO, Masafumi
APPLICANT: TSUJUKA, Nobuo
APPLICANT: IWASA, Fuyuki
APPLICANT: IWASA, Fuyuki
APPLICANT: MIURA, Kenju
APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, Nozomi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: George Mason Bldg., Washington & Prince Sts.
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
COUNTRY: United States
COUPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NOTA:
APPLICATION NUMBER: US/08/091,028
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CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
1 4-212305

14-JUL-1993

APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992

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US-08-091-028A-8
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                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPUTER: OCDS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/091,028A
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
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                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                   COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                STREET: George Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Crane-Feury, Sharon E REGISTRATION NUMBER: 36,113
                               APPLICATION NUMBER: JP 5-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                 Virginia
                                                                                                                                                                                                                                                                                                                                              E: Burns, Doane, Swecker & Mathis
George Mason Bldg., Washington & Prince Sts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 amino acids
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YAMAICHI, Kozo
YAMAGUCHI, Nozomi
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rsujimoto, masafumi
TERESA STANEK
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04-MAR-1993
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                                                                                              JP 4-212305
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Pred. No.
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Best Local Similarity
"atches 5; Conserve
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MEDIUM TYPE: Floppy disk

COMPUTER: LBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0,

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/140,719
                                                                                                    PILING DATE: 14-JUL-1993

PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-2
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-0
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                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
                                                                          FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                 FILING DATE: 07-JUN-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: YAMAGUCHI, NOZOMİ
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                FILING DATE: 0
CLASSIFICATION:
                                              NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,3
                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Alexandria
                                                                                                                                                                                                    APPLICATION NUMBER:
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linear
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YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                            Release #1.0, Version #1.30
                                                                                                                                                       JP 4-212305
                                                                                                                                                                                                      US 08/091,028
                                                                                                            JP 6-067339
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                                 001560-247
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Pred. No. 4.2e+06;
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SEQUENCE CHARACTERISTICS:

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Best Local 9
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                                                                                                         TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: 8:
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STRANDEDNESS: sir
TOPOLOGY: linear
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                           NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
MOLECULE
                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 5 amino acids
                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: UP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
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FILING DATE: 07-Mar-2002
CLASSIFICATION: CURNOWN>
R APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Alexandria
STATE: Virginia
                                TYPE: amino acid
STRANDEDNESS: single
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                  FOPOLOGY: linear
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NAKAZATO, Hiroshi
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AMAGUCHI, NOZOMI
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Pred. No.
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4.2e+06;
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RESULT 7
US-09-621-976-5429
; Sequence 5429, Application US/09621976
; GENERAL INFORMATION:
; APPLICANT: Dumas Milne Edwards, J.B.
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US-60-188-162-4539
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US-60-160-203-4173
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SOFTWARE: FASTSEQ for
SEQ ID NO 4539
LENGTH: 118
; TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Beasley, Ellen
TITLE OF INVENTION: ISOLATE
TITLE OF INVENTION: UNCLEIC
TITLE OF INVENTION: USES TH
FILE REFERENCE: CL000518
                                                                                                                                                                 Query Match
Best Local S
Matches 5
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SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4173
LENGTH: 78
TYPE: PRT
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Best Local Similarity
Matches 5; Conser
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Best Local S
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TITLE OF INVENTION: ISOLATED HUMAN SECRETED PROTEINS,
TITLE OF INVENTION: NUCLEIC ACID MOLECULES ENCODING HUMAN SECRETED PROTEINS AND
TITLE OF INVENTION: USES THEREOF
                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/60/188,162
CURRENT FILING DATE: 2000-05-09
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CURRENT FILING DATE: 1999-10-19
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                                                                                                                                                               Local Similarity
es 5; Conserv
                                                                                                       37 NYEMK 41
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Pred. No.
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Pred. No. 1.8e+02;
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Pred. No. 1.2e+02;
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4.2e+06;
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Giordano,

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Query Match
Best Local Similarity
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                                                                                                             RESULT 9
US-09-328-352-6374
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US-60-147-499-5429
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                          Sequence 6374, Application US/09328352
GENERAL INFORMATION:
APPLICANT: Gary L. Breton et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
ETIC DETERMINE: GEORGIA OF AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER
ETITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
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SEQ ID NO 5429
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SOFTWARE: Patent.pm
SEQ ID NO 5429
LENGTH: 126
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FILE REFERENCE:
CURRENT APPLICA:
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CURRENT FILING DATE: 1999-08-05
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LOCATION: -41..-1
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NUMBER: US/09/328,352
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Pred. No. 2e+02;
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Pred. No.
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US-09-731-872-445
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US-09-328-352-6374
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SEQ ID NO 445
LENGTH: 163
                                SOFTWARE: Patent.
SEQ ID NO 445
LENGTH: 163
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Best Local
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Best Local Similarity
Matches 5; Conser
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NUMBER OF SEQ ID NOS: 8252
SEQ ID NO 6374
LENGTH: 145
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TITLE OF INVENTION: FULL-LENGTH HUMAN CDNAS ENCODING POTENTIALLY SECRETED PROTEINS
FILE REFERENCE: 78 B.US4. CIP
CURRENT APPLICATION NUMBER: US/09/876,997
CURRENT FILING DATE: 2001-66-08
                                                                                                                                            PRIOR APPLICATION NUMBER: US 09/731,872
PRIOR FILING DATE: 2000-12-07
PRIOR APPLICATION NUMBER: US 60/187,470
PRIOR FILING DATE: 2000-03-06
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CURRENT FILING DATE: 2000-12-07
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APPLICANT: Bougueleret, Lydie
APPLICANT: Jobert, Severin
TITLE OF INVENTION: FULL-LENGTH HUMAN CDNAS ENCODING POTENTIALLY SECRETED PROTEINS
FILE REFERENCE: 78.US3.REG
                                                                                                           PRIOR APPLICATION NUMBER: US 60/169,629 PRIOR FILING DATE: 1999-12-08
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                                                                                          NUMBER OF SEQ ID NOS:
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                     TYPE: PRT
ORGANISM: Homo sapiens
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Pred. No. 2.6e+02;
Pred. No. 2.6e+02;
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Pred. No.
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US-60-169-629-607
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                                                                                                         ; NAME/KEY: SIGNAL; LOCATION: -77..-1
US-60-187-470-607
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US-60-169-629-607
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Best Local Similarity 100.
Conservative
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CURRENT FILING DATE: 1999-12-08
NUMBER OF SEO ID NOS: 715
SOFTWARE: Patent.pm
SEO ID NO 607
LENGTH: 163
TYPE: PRT
                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/60/187,470
CURRENT FILING DATE: 2000-03-06
NUMBER OF SEQ ID NOS: 715
SOFTWARE: Patent.pm
SEQ ID NO 607
LENGTH: 163
TYPE: PRT
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                                                                               Query Match
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APPLICANT: Bougueleret, L.
APPLICANT: Jobert, S.
TITLE OF INVENTION: cDNAS for Secreted Proteins
FILE REFERENCE: CENSET.071PRF
                                                                                                                                                                                                                                                                         APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Bougueleret, L.
APPLICANT: Jobert, S.
TITLE OF INVENTION: cDNAS for Secreted Proteins
FILE REFERENCE: 78.US2.PRO
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Pred. No.
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Pred. No.
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2.6e+02;
                                                     2.6e+02;
hes 0;
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2.6e+02;
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RESULT 14

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RESULT 15
US-09-252-691-7915
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Best Local Similarity
Matches 5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Aspergillus fumigatus US-09-675-784A-12333
Search completed: July 11, 2003, 12:27:38 Job time: 17.738 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-675-784A-12333
                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/252,691B
CURRENT FILING DATE: 1999-02-18
NUMBER OF SEQ ID NOS: 11324
SEQ ID NO 7915
LENGTH: 214
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SEQ ID NO 12333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/675,784A CURRENT FILING DATE: 2000-09-29 PRIOR APPLICATION NUMBER: 60/156,338 PRIOR FILING DATE: 1999-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: ZENG, QIANDONG
APPLICANT: GREENE, JONATHAN R.
TITLE OF INVENTION: ASPERGILLUS FUMIGATUS NUCLEIC ACIDS AND POLYPEPTIDES,
TITLE OF INVENTION: AND USES THEREFOR
FILE REFERENCE: 2976-4020US1
                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
FILE REFERENCE: 107
                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
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VENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ENTEROBACTE VENTION: CLOACAE FOR DIAGNOSTICS AND THERAPEUTICS
NCE: 107196.135
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NOLLING, JORK
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SHIMER JR., GEORGE H.
                                                                                                                                     Conservative
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Pred. No. 3.5e+0
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Pred. No. 2.9e+02;
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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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Perfect score:
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1 NYEMK 5
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/cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep:*
/cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep!*
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/cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep!*
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/cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep!*
/cgn2_6/ptodata/1/paa/US09_NEW_COMB.pep!*
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/cgn2_6/ptodata/1/paa/US10_NEW_COMB.pep!*
/cgn2_6/ptodata/1/paa/US10_NEW_COMB.pep!*
/cgn2_6/ptodata/1/paa/US10_NEW_COMB.pep!*
/cgn2_6/ptodata/1/paa/US10_NEW_COMB.pep!*
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Pred. No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result | Score | Query<br>Match | Length | DB | ID                   | Description       |
|--------|-------|----------------|--------|----|----------------------|-------------------|
| L      | 28    | 100.0          | 116    | 10 | US-09-724-676-95964  | Sequence 95964, A |
| 2      | 28    | 100.0          | 116    | 10 | US-09-724-676A-95964 |                   |
| w      | 28    | 100.0          | 135    | 12 | US-10-424-599-265931 | Sequence 265931,  |
| 4      | 28    | 100.0          | 145    | 12 | US-10-431-652-6374   |                   |
| U      | 28    | 100.0          | 158    | 10 | US-09-724-676-95968  |                   |
| 6      | 28    | 100.0          | 158    | 10 | US-09-724-676A-95968 | Sequence 95968, A |
| 7      | 28    | 100.0          | 175    | 12 | US-10-424-599-254001 | Sequence 254001,  |
| 8      | 28    | 100.0          | 181    | 10 | US-09-675-784A-12333 | Sequence 12333, A |
| 9      | 28    | 100.0          | 205    | 12 | US-10-424-599-265929 | Sequence 265929,  |
| 10     | 28    | 100.0          | 214    | 12 | US-10-417-886-7915   | Sequence 7915, Ap |
| 11     | 28    | 100.0          | 380    | 10 | US-09-936-883C-2     | Sequence 2, Appli |
| 12     | 28    | 100.0          | 380    | 12 | US-10-126-052A-263   | Sequence 263, App |
| 13     | 28    | 100.0          | 380    | 14 | US-60-443-566-3006   | Sequence 3006, Ap |
| 14     | 28    | 100.0          | 380    | 14 | US-60-455-444-4692   | Sequence 4692, Ap |
| 15     | 28    | 100.0          | 380    | 14 | US-60-465-241-4692   | Sequence 4692, Ap |
| 16     | 28    | 100.0          | 819    | 14 | US-60-443-566-2783   | Sequence 2783, Ap |
| 17     | 28    | 100.0          | 819    | 14 | US-60-452-680-17072  | Sequence 17072, A |
| 18     | 28    | 100.0          | 819    | 14 | US-60-453-135-10384  |                   |
| 19     | 28    | 100.0          | 819    | 14 | US-60-453-050-10384  | Sequence 10384, A |
|        |       |                |        |    |                      |                   |

| 28 100.0 847 2 PCT-US02-19669A-498 25 89.3 32 12 US-10-019-596A-5 25 89.3 32 12 US-10-019-596A-6 25 89.3 32 12 US-10-019-596A-7 25 89.3 32 12 US-10-019-596A-7 25 89.3 32 12 US-10-019-596A-7 25 89.3 32 12 US-10-019-596A-1 25 89.3 32 12 US-10-019-596A-1 25 89.3 32 12 US-10-019-596A-1 25 89.3 43 10 US-09-950-0818-3405 25 89.3 52 12 US-10-424-599-191002 25 89.3 52 12 US-10-424-599-191002 25 89.3 61 10 US-09-724-676A-93757 25 89.3 61 10 US-09-724-676A-93757 25 89.3 61 10 US-09-724-676A-93759 25 89.3 72 10 US-09-724-676A-93759 25 89.3 72 10 US-09-724-676A-93759 25 89.3 74 10 US-09-513-999C-7464 25 89.3 90 10 US-09-513-999C-7464 25 89.3 101 US-09-513-999C-7444 25 89.3 101 US-09-513-999C-7444 25 89.3 101 US-09-513-999C-7444 25 89.3 101 US-09-513-999C-7444 25 89.3 101 US-09-513-999C-7444 25 89.3 101 US-09-513-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 25 89.3 101 US-09-613-999C-7444 |
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# ALIGNMENTS

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RESULT 1

US-09-724-676-95964
; Sequence 95964, Application US/09724676
; GENERAL INFORMATION:

APPLICANT: Compugen LTD
; TITLE OF INVENTION: Variants of alternative spl
; FILE REFERENCE: 129181.4 Compugen
; CURRENT APPLICATION NUMBER: US/09/724,676
; CURRENT APPLICATION NUMBER: US/09/724,676
; CURRENT FILING DATE: 2000-11-28
; NUMBER OF SEQ ID NOS: 97222
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 95964
; LENGTH: 116
; LENGTH: 116
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; ORGANISM: Homo sapiens
US-09-724-676A-95964
                                                                                                                                                                                                                                                                          US-09-724-676A-95964
                                                                    Sequence 95964, Application US/09724676A
GENERAL INFORMATION:
APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676A
CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: Patentin version 3.2
SEQ ID NO 95964
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US-10-431-652-6374
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SEQ ID NO 265931
LENGTH: 135
TYPE: PRT
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LENGTH: 145
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TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(5323)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
                                                                                                                                                                                                                    PRIOR FILING DATE: 1999-06-04
PRIOR APPLICATION NUMBER: US.60/088,701
PRIOR FILING DATE: 1998-06-09
                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/431,652 CURRENT FILING DATE: 2003-05-06
                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ACINETOBACTER TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS.
                                                                                                                                                                                                                                                PRIOR FILING DATE: 1999-06-04
                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Breton, Gary L. APPLICANT: Bush, David
                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 8252
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; OTHER INFORMATION: Clone ID: PAT_MRT3847_71386C.1.pep US-10-424-599-254001
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                                                                                   NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 254001
LENGTH: 175
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CURRENT FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
SOFTWARE: PatentIn version 3.2
SEQ ID NO 95988
LENGTH: 158
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SOFTWARE: PatentIn version 3.2
SEQ ID NO 95968
LENGTH: 158
TYPE: PRT
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                                                                                                                                    APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Syv uncleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
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TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676
CURRENT FILING DATE: 2000-11-28
                                                                                                                                                                                                                                                                                         APPLICANT: La Rosa Thomas
                                                                        TYPE: PRT
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ORGANISM: Homo sapiens
                                    FEATURE:
                                                   ORGANISM: Glycine max
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Kovalic David K
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100.0%; Pred. No.
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Pred. No.
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US-09-675-784A-12333
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TITLE OF INVENTION: ASPERGILLUS FUMIGATUS NUCLEIC ACIDS AND POLYPEPTIDES,
TITLE OF INVENTION: AND USES THEREFOR
FILE REFERENCE: 2976-4020US1
CURRENT APPLICATION NUMBER: US/09/675,784A
CURRENT FILING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: 60/156,338
PRIOR APPLICATION NUMBER: 60/156,338
PRIOR FILING DATE: 1999-09-29
NUMBER OF SEQ ID NOS: 13925
SEQ ID NO 1233
LENGTH: 181
TYPE: PRT
                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 265929
LENGTH: 205
TYPE: PRT
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Best Local
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APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(3323)8
FULE REFERENCE: 38-21(3323)8
CURRENT FILING DATE: 2003-04-28
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APPLICANT: Kovalic David K
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NOLLING, JORK
ZENG, QIANDONG
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SHIMER JR., GEORGE H.
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                                                            Mismatches
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RESULT 12
US-10-126-052A-263
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US-10-417-886-7915
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CURRENT FILING DATE: 2003-04-17
PRIOR APPLICATION NUMBER: US/09/252,691C
PRIOR FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/094,145
PRIOR FILING DATE: 1998-07-24
PRIOR APPLICATION NUMBER: US 60/074,787
PRIOR APPLICATION NUMBER: US 60/074,787
PRIOR FILING DATE: 1998-02-18
                                                                                                  Sequence 263, Application US/10126052A GENERAL INFORMATION:
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SEQ ID NO 7915
LENGTH: 214
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Best Local
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Matches 5; Conserv
                                        APPLICANT: Aziz, Natasha
APPLICANT: Murray, Richa
APPLICANT: Eos Biotechno
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO ENTEROBACTER
TITLE OF INVENTION: CLOACAE FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.135
APPLICANT: Murray, Richard
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn
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CURRENT FILING DATE: 2001-12-21
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TYPE: PRT
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Pred. No.
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Mismatches
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REFERENCE: 018501-001530US

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RESULT 14

US-60-455-444-4692

Sequence 4692, Application US/60455444

GENERAL INFORMATION:

APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann

TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH

TITLE OF INVENTION: GENERATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001455

CURRENT APPLICATION UNMEER: US/60/455,444

CURRENT APPLICATION DATE: 2003-03-18

NUMBER OF SEQ ID NOS: 50986

NUMBER OF SEQ ID NOS: 50986
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US-60-443-566-3006
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US-60-443-566-3006
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PRIOR FILING DATE: 2001-11-09
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR FILING DATE: 2001-11-29
PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2002-04-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 3006
LENGTH: 380
TYPE: PRT
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GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
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LENGTH: 380
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Local Similarity 100.0%;
es 5; Conservation
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Pred. No.
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Search completed: July 11, Job time: 5.79854 secs

2003, 12:35:12

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Query Match
Best Local Similarity
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                                                                                                           ; ORGANISM: Homo sapiens US-60-465-241-4692
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: PRT ; ORGANISM: Homo sapiens US-60-455-444-4692
                                                                                                                                                                                                                                                                                                                                         US-60-465-241-4692
                                                                                                                                                                                                                                                                                                                                                        RESULT 15
                                                                                                                                     NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
TYPE: PRT
                                                                                                                                                                                                                                     Sequence 4692, Application US/60465241
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: REGUNATIOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001468
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity luv.
""" hes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 4692
LENGTH: 380
                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
284 NYEMK 288
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                         1 NYEMK 5
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                                                                  Score 28;
Pred. No.
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Pred. No.
                                                      Mismatches
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                                                                               14; Length 380;
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                                                     Indels
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
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                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                      Score
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[ /gqn2_6/ptodata/1/paa/pcTUS_COMB.pep:*

    /cgn2_6/ptodata/1/paa/US06_COMB.pep:*

    /cgn2_6/ptodata/1/paa/US07_COMB.pep:*

    /cgn2_6/ptodata/1/paa/US080_COMB.pep:*

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/ Cgn2_6/ptodata/1/paa/US083_COMB.pep: *
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15 US-09-508-997A-2

21 US-09-791-537-281
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Sequence 9, Appli
Sequence 9, Appli
Sequence 34, Appl
Sequence 34, Appli
Sequence 2, Appli
Sequence 281, App
                                                                                                                                                                                      Description
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| 44<br>U             |     |                |                 |                |          | 40         |              | 38    |               |                                               | <u>ა</u> |               |               |               |               |               | 29         |               |               | 26               | 25            | 24            | 23            | 22             | 21             | 20             | 19             | 18              | 17        | 16        | 15                | 14         | 13            | 12         | 11 | 10         | 9             | œ              | 7                 |
|---------------------|-----|----------------|-----------------|----------------|----------|------------|--------------|-------|---------------|-----------------------------------------------|----------|---------------|---------------|---------------|---------------|---------------|------------|---------------|---------------|------------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|-----------------|-----------|-----------|-------------------|------------|---------------|------------|----|------------|---------------|----------------|-------------------|
| u<br>u              | , ( | ٠<br>د د       | 'n              | ω<br>ω         | <b>ω</b> | <b>3</b> 3 | 33           | 33    | 34            | 34                                            | 34       | 34            | 34            | 34            | 34            | 34            | 34         | 34            | 34            | 34               | 34            | ω<br>5        | 35            | 35             | 35             | ა<br>5         | 36             | 36              | 37        | 37        | 37                | 41         | 41            | 41         | 44 |            | 50            | 50 .           | 50                |
| 66.0                | •   |                |                 | •              | •        | •          | •            | •     | •             | •                                             | 68.0     | •             | •             | •             | •             | •             | 68.0       | •             | •             | 68.0             | •             | •             | 70.0          | 70.0           |                | 70.0           | •              | 72.0            | •         | ٠.        | 74.0              | 'n         | ٢             | ۲.         | 8  | 88.0       | 8             | ٠              | 100.0             |
| 303                 | , , | 200            | 275             | 161            | 108      | 70         | 70           | 70    | 8             | 221                                           | 83       | 83            | 83            | 82            | 82            | 82            | 82         | 82            | 76            | 67               | 67            | 1373          | 602           | 578            | 576            | 212            | 336            | 118             | 368       | 368       | 368               | 380        | 380           | 380        | 10 | 10         | 380           | 380            | 380               |
| 21                  | , , | ۱ د            | <u>.</u>        | 27             | 27       | 27         | 27           | 27    | 16            | <u>, , , , , , , , , , , , , , , , , , , </u> | 26       | 16            | _             | 27            | 27            | 22            | 22         | 16            | 25            | 19               | 13            | 27            | 21            | 21             | 21             | 21             | 19             | -               | 25        | 23        | 19                | 25         | 23            | 19         | 4  | 4          | 25            | 24             | 23                |
| US-U9-791-537-28004 | 200 | -09-791-537-RE | -09-791-537-446 | -60-142-845-60 | 5        | 11-57      | 0-177-646-28 | w     | -252-991A-308 | 01-08631-41                                   | -10-219- | -09-209-462B- | -US98-12125-J | -60-197-873-2 | -60-069-957-2 | -09-856-231A- | -09-834-36 | -09-215-435-3 | -10-155-881-1 | -09-547-599C-304 | -08-904-468-3 | -60-243-468-1 | -09-708-427-1 | -09-708-427-26 | -09-708-427-16 | -09-791-537-79 | -09-540-209B-5 | -US01-08631-416 | S-10-110- | -09-936-8 | -09-508-997A-     | -10-110-03 | -09-936-883A- | S-09-508-9 |    | -08-091-02 | S-10-110-030- | S-10-091-442-3 | US-09-936-883A-2  |
| Sequence 28004, A   |     | 95844          | D               | , 609          | e 509,   | <u>,</u>   | e 2881,      | e 351 | ø             | 41682,                                        | e 160,   | e 160,        | 155, A        | e 25985       | 248           | 123,          | 25985      | e 380         | 19011         | መ                | 328,          | 1280,         | 16207,        | 2673, A        | e 16208        | e 79944,       | e 5860         | 41683, A        | 6, Appl   | 21,       | Sequence 6, Appli | ۰,         | e 19,         | e 4,       | ٥  | 9, 7       | e 2, 1        | e 34,          | Sequence 2, Appli |

#### ALIGNMENTS

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RESULT 1

US-09-140-719-9

Sequence 9, Application US/09140719

Sequence 9, Application WS/09140719

GENERAL INFORMATION:

APPLICANT: TSUJINOTO, Masafumi
APPLICANT: IWASA, Fuyuki
APPLICANT: IWASA, Fuyuki
APPLICANT: WIURA, Kenju
APPLICANT: WIURA, Kenju
APPLICANT: VAMACHI, Kozon
APPLICANT: YAMAGUCHI, NOZOM
APPLICANT: YAMAGUCHI, NOZOMi
APPLICANT: YAMAGUCHI, NOZOMi
APPLICANT: YAMAGUCHI, NOZOMi
APPLICANT: YAMAGUCHI, NOZOMi
APPLICANT: YAMAGUCHI, NOZOMi
APPLICANT: YAMAGUCHI, NOZOMi
CORRESPONDENCE ADDRESS:
APPLICANT: YAMAGUCHI, NOZOMi
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STATE: Vitginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/09/140,719
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RESULT 2
US-10-091-442-9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 9, Application US/10091442 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 07-JU
                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                           ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                  PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AVAMMHQERK 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
Similarity 100.0%;
                            APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                CITY: Alexandria
STATE: Virginia
COUNTRY: United States
                                                                                                                                                                                                                                                   STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           McGowan, Malcolm K.
APPLICATION NUMBER: US/09/140,719
                                                                                                                                                                                                                                                               ADDRESSEE: Burns, Doane,
                                                                                                                                                                                                                                                                                                      OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                            IWASA, Fuyuki
TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                              KURIHARA, Tatsuya
                                                                                                                                                                                                                                                                                                                                                    YAMAICHI, Kozo
                                                                                                                                                                                                                                                                                                                                                                                  ISHIDA, Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide
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07-JUN-1995
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Best Local (
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US-08-091-028A-34
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                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patentin Release #1.0, Version #1.25
                                PRIOR APPLICATION DATA:
                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
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                                                                                                                                                                                                                                                                                                                              STREET: Georgia
CITY: Alexandria
                                                  FILING DATE:
                APPLICATION NUMBER:
                                                    APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                  CLASSIFICATION:
                                                                                                                                  APPLICATION NUMBER: US/08/091,028A FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                          COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Burns, Doane, Swecker & Mathis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO: 9:
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Similarity 100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-UUL-1993
APPLICATION NUMBER: JF 4-212305
FILING DATE: 17-UUL-1992
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FILING DATE: 04-MAR-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                  George Mason Bldg., Washington & Prince Sts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KURIHARA, Tatsuya
YAMAICHI, Kozo
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ISHIDA, Nobuhiro
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NAKAZATO, Hiroshi
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04-MAR-1993
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                JP 5-067339
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REFERENCE/DOCKET NUMBER: 001560-204

30,427

REGISTRATION NUMBER:

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FILING DATE: 08-AUG-1998

CLASSIFICATION:

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Best Local Similarity 100.0%;
Matches 10; Conservative (
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (703) 836-66
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: P.O. Box 1404
CITY: Alexandria
STATE: Virginia
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APPLICATION NUMBER: US 0:
FILING DATE: 07-JUN-1995
                                                                                                                            APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992
RIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear
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NAKAZATO, Hiroshi
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YAMAICHI, Kozo
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                                   001560-247
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                                                                                                                               ; ORGANISM: Homo sapiens US-09-791-537-281
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                                                                                                                                                                                             SOFTWARE: PatentIn version 3.0 SEQ ID NO 281
                                                                                                                                                                                                                                                                                                                                                                             Sequence 281, Application US/09791537 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
LENGTH: 380
TYPE: PRT
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Best Local :
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Best Local :
                                                                  Matches
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Best Local
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FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
                                                                                                                                                                                                                                                                                      APPLICANT: Debe, Derek
APPLICANT: Danzer, Joseph
TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY ME
TITLE OF INVENTION: METHODS OF USE THEREOF
                                                                                                                                                                                                                             FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
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                                                                                                                                                            LENGTH: 380
TYPE: PRT
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LENGTH: 380 amino acids
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                                                                              Local Similarity
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Local Similarity 100.0%;
es 10; Conservative (
204 AVAMMHQERK 213
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                                                                                100.0%; Score 50; DB 21; 100.0%; Pred. No. 0.21;
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Pred. No. 0.2
0; Mismatches
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Pred. No. 0.21;
Mismatches
                                                                Mismatches
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                                                                                             Length 380;
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RESULT 8
US-10-091-442-34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver: 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/09936883A
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883A
CURRENT FILING DATE: 2001-12-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 34, Application US/10091442 GENERAL INFORMATION:
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TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                    ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                                    PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR NUMBER OF SEQUENCES: 34
           APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
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                                                                                                                                                                               APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                   CITY: Alexandria
STATE: Virginia
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: P.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Burns, Doane, Swecker & Mathis
                                                                                                                                                                    APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KURIHARA, Tatsuya
YAMAICHI, Kozo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MIURA, Kenju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TSUROUOKA, Nobuo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ISHIDA, Nobuhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AMAGUCHI, Nozomi
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~r. 2.0
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JP 6-067339
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US-08-091-028-9
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                                                                                                                                                                                                                      Sequence 9, Applicati
GENERAL INFORMATION:
APPLICANT: TSUJIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/10110030
GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE
TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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PRIOR FILING DATE: 1999-10-06
NUMBER OF SEQ ID NOS: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/110,030 CURRENT FILING DATE: 2002-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: SHIM015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
                                 APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, KOZOMI
APPLICANT: YAMAGUCHI, NOZOMI
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                     APPLICANT:
APPLICANT:
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   STREET:
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                 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 34:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                            204 AVAMMHQERK 213
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                                                                                                                                                                                                                                                       Application US/08091028
3: Burns, Doane, Swecker & Mathis
George Mason Bldg., Washington & Prince Sts.
                                                                                                                                                   TSURUOKA, Nobuo
NAKAZATO, Hiroshi
MIURA, Kenju
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                                                                                                                                   ISHIDA, Nobuhiro
                                                                                                                                                                                                                        TSUJIMOTO, Masafumi
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Pred. No. 0.21;
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Pred. No. 0.21;
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COUNTRY:

United States

Virginia

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 9, Application US/08091028A GENERAL INFORMATION:
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/091,028
FILING DATE: 14-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION NUMBER: JP 5-067339
APPLICATION NUMBER: JP 5-067339
APPLICATION NUMBER: JP 5-067339
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
                              SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                           APPLICANT: YAMAGUCHI, NOZOMI
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                   STREET: George Mason Bldg., Washington & Prince Sts
CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
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REFERENCE/DOCKET NUMBER: 001560-204
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APPLICATION NUMBER: US/08/091,028A FILING DATE: 14-JUL-1993
                                                                                                                                               STATE: Virginia COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                         ADDRESSEE:
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Similarity 90.0%;
9; Conservative
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NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                               KURIHARA, Tatsuya
YAMAICHI, Kozo
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                       IURA, Kenju
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                                                                                                                                                                                                                                                                                                                                                                                                                                        Fuyuki
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RESULT 13
US-09-936-883A-19
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SEQ ID NO 4
LENGTH: 380
TYPE: PRT
ORGANISM: Rattus rattus
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INFORMATION FOR SEQ ID NO: 9
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acid
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Best Local S
Matches 9
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GENERAL INFORMATION:
APPLICANT: MIYATA, TOSHIO
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR ADDITATION: CURRENT FILING DATE: 2000-06-27
Sequence 19, Application US/09936883A
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883A
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                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 44
                                                                                                                                                                                                                                                                                                                                                NAME/KEY: UNSURE LOCATION: 51, 94 OTHER INFORMATION: Xaa is unknown.
                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                    82.0%;
Local Similarity 80.0%;
es 8; Conservation
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                                                                                                                                                                                         1 AVAMMHQERK 10
|| ||||:
204 AVNMMHQERR 213
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                                                                                                                                                                                                                                                                                             Score 41;
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Pred. No. 0.048;
                                                                                                                                                                                                                                                                              Pred. No.
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                                                                                                                                                                                                                                                             1; Indels
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NUMBER OF SEQ ID NOS: 21

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 19

LENGTH: 380

TYPE: PRT
ORGANISM: Rattus norvegicus
FEATURE:
FEATURE:
NAME/KEY: misc_feature
LOCATION: 51, 94

OTHER INFORMATION: Xaa is unknown.
US-09-936-883A-19
                                             Sequence 6, Application US/09508997A
GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
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US-09-508-997A-6
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                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Rattus norvegicus ; FEATURE: ; NAME/KEY: VARIANT ; LOCATION: 51, 94 ; OTHER INFORMATION: Xaa = Any Amino Acid US-10-110-030-4
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US-10-110-030-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 15
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 380
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 4, Application US/10110030 GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
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CURRENT FILING DATE: 2002-04-03
PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE TITLE OF INVENTION: NEPHRITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT FILING DATE: 2001-12-
PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
                              NUMBER OF SEQ ID NOS: 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: SHIM015
                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 80.0% nes 8; Conservative
                                                                                                                                                                                                                                                                                204 AVNMMHQERR 213
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204 AVNMMHQERR 213
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                                                                                                                                                                                                                                                                                                                                                                    Score 41; DB Pred. No. 16;
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Search completed: July 11, 2003, 12:27:40 Job time: 33.4761 secs

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Fri Jul 11 15:11:3
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Database :
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein - protein search, using sw model
                                                                                            Pred No. 1s the number of results predicted by chance to have a score greater than or equal to the score of the result being printed.
                                                        and is derived by analysis of the total score distribution
                                                                                                                                                                                        Pending_Patents_AA_New:*

1: /cgn2_6/ptcodata/1/paa/PCT_NEW_COMB.pep4:*

2: /cgn2_6/ptcodata/1/paa/PCT_NEW_COMB.pep4:*

3: /cgn2_6/ptcodata/1/paa/US06_NEW_COMB.pep4:*

4: /cgn2_6/ptcodata/1/paa/US06_NEW_COMB.pep4:*

5: /cgn2_6/ptcodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptcodata/1/paa/US07_NEW_COMB.pep4:*

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10: /cgn2_6/ptcodata/1/paa/US08_NEW_COMB.pep4:*

11: /cgn2_6/ptcodata/1/paa/US09_NEW_COMB.pep4:*

12: /cgn2_6/ptcodata/1/paa/US10_NEW_COMB.pep4:*

13: /cgn2_6/ptcodata/1/paa/US10_NEW_COMB.pep4:*

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14: /cgn2_6/ptcodata/1/paa/US60_NEW_COMB.pep4:*
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1 AVAMMHQERK 10
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SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (without alignments)
280.699 Million cell updates/sec
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| Result<br>No. | Score  | Query<br>Match | Length | BG | ID                   | Description       |
|---------------|--------|----------------|--------|----|----------------------|-------------------|
| 1             | 50     | 100.0          | 380    | 10 | US-09-936-883C-2     | Sequence 2, Appli |
| N             | 50     | 100.0          | 380    | 12 | US-10-126-052A-263   | 26                |
| ω             | 50     | 100.0          | 380    | 14 | US-60-443-566-3006   | ٥,                |
| 4             | 50     |                | 380    | 14 | US-60-455-444-4692   |                   |
| ري<br>د       | 50     | 100.0          | 380    | 14 | US-60-465-241-4692   | 469               |
| 6             | 41     | 82.0           | 380    | 10 | US-09-936-883C-19    |                   |
| 7             | 40     | 80.0           | 131    | 10 | US-09-864-408A-6424  | 642               |
| 8             | 37     |                | 368    | 10 | US-09-936-883C-21    | Sequence 21, Appl |
| 9             | 34     | 68.0           | 48     | 14 | US-60-443-566-4420   | Sequence 4420, Ap |
| 10            | 34     |                | 69     | 14 | US-60-443-566-4419   | Sequence 4419, Ap |
| 11            | 34     |                | 82     | 10 | US-09-724-676-86949  | Sequence 86949, A |
| 12            | 34     | 68.0           | 82     | 10 | US-09-724-676A-86949 | Sequence 86949, A |
| 13            | 34     | 68.0           | 82     | 14 | US-60-443-566-4418   | Sequence 4418, Ap |
| 14            | 34     | 68.0           | 83     | 12 | US-10-219-051B-5879  | Sequence 5879, Ap |
| 15            | 34     | 68.0           | 83     | 12 | US-10-219-051B-5882  | Sequence 5882, Ap |
| 16            | 34     | 68.0           | 869    | 12 | US-10-437-963-172615 | Sequence 172615,  |
| 17            | 34     | 68.0           | 980    | 12 | US-10-366-683-30838  | Sequence 30838, A |
| 18            | 34     | 68.0           | 980    | 12 | US-10-419-128-30838  | Sequence 30838, A |
| 19            | υ<br>u | 66.0           | 161    | 12 | US-10-437-963-160324 | Sequence 160324,  |
|               |        |                |        |    |                      |                   |

| ; | 45                   | 44     | 43                  | 42     | 41   | 40   | 39                | 38                | 37                | 36                | 35                  | 34                   | ω<br>ω | 32                 | 31                   | 30                | 29               | 28                 | 27                  | 26                 | 25          | 24                  | 23                  | 22     | 21           | 20                |
|---|----------------------|--------|---------------------|--------|------|------|-------------------|-------------------|-------------------|-------------------|---------------------|----------------------|--------|--------------------|----------------------|-------------------|------------------|--------------------|---------------------|--------------------|-------------|---------------------|---------------------|--------|--------------|-------------------|
| i | 3<br>2               | 32     | 32                  | 32     | 32   | 32   | 32                | 32                | 32                | 32                | 32                  | 32                   | 32     | 32                 | 32                   | 33                | 33               | 33                 | 33                  | 33                 | 33          | ω<br>ω              | 33                  | 33     | ω<br>ω       | <u>კ</u>          |
|   | 64.0                 | 64.0   | 64.0                | 64.0   | 64.0 | 64.0 | 64.0              | 64.0              | 64.0              | 64.0              | 64.0                | 64.0                 | 64.0   | 64.0               | 64.0                 | 66.0              | 66.0             | 66.0               | 66.0                | 66.0               | 66.0        | 66.0                | 66.0                | 66.0   | 66.0         | 66.0              |
| ; | 496                  | 493    | 493                 | 304    | 298  | 298  | 279               | 279               | 279               | 235               | 221                 | 220                  | 149    | 136                | 96                   | 796               | 700              | 700                | 655                 | 646                | 560         | 560                 | 496                 | 496    | 453          | 337               |
|   | 12                   | 12     | 12                  | 12     | 12   | 12   | 10                | 10                | 10                | 12                | 12                  | 12                   | 12     | 12                 | 12                   | 12                | 12               | 12                 | 14                  | 12                 | 12          | 10                  | 12                  | 12     | 12           | 12                |
|   | US-10-282-122A-76573 | 0-419- | US-10-366-683-28024 | 282-   | -282 | 282- | -332C             | US-09-858-332B-14 | US-09-858-332A-14 | US-10-266-887-19  | US-10-425-114-38163 | US-10-424-599-210174 | -963   | US-10-264-237-2376 | US-10-437-963-179299 | -051B             | US-10-366-547-63 | US-10-276-781-1352 | US-60-452-680-24115 | US-10-227-425-2207 | -10-087-192 | US-09-949-016-10786 | US-10-419-128-17916 | -1791  | -10-437-963- | US-10-289-762-411 |
|   | 76573,               |        | •                   | 62036, |      | 6287 | Sequence 14, Appl | 14,               | 14,               | Sequence 19, Appl | Sequence 38163, A   | Sequence 210174,     |        | Sequence 2376, Ap  |                      | Sequence 12638, A |                  | Sequence 1352, Ap  | •                   |                    | 1020,       | Sequence 10786, A   |                     | 17916, | ప            | Sequence 411, App |

## ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 380
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-936-883C-2
                                                                                                                                                                                  US-10-126-052A-263; Sequence 263, Application US/10126052A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 1
US-09-936-883C-2
                                 GENERAL INFORMATION:
APPLICANT: Aziz, Natasha
APPLICANT: Murray, Richard
APPLICANT: Eos Blotechnology, Inc.
APPLICANT: Eos Blotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer, Compositions and
TITLE OF INVENTION: Methods of Screening for Modulators of Lung Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/09936883C GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 10; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 1999-75305
PRIOR APPLICATION NUMBER: JP 1999-306623
CURRENT APPLICATION NUMBER: US/10/126,052A
                        FILE REFERENCE: 018501-001530US
                                                                                                                                                                                                                                                                                                     204 AVAMMHQERK 213
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Pred. No. 0.12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
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CURRENT FILING DATE: 2002-04-18
PRIOR APPLICATION NUMBER: US 60/284,770

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US-60-455-444-4692
, Sequence 4692, Application US/60455444
; GENERAL INFORMATION:
, APPLICANT: CARGILL, Michele
, APPLICANT: BEGOVICH, Ann
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US-60-443-566-3006
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US-10-126-052A-263
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PRIOR APPLICATION NUMBER: US 60/290,492
PRIOR FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 60/339,245
PRIOR FILING DATE: 2001-11-09
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR APPLICATION NUMBER: US 60/334,370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION UNMER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3006
LENGTH: 380
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LENGTH: 380
TYPE: PRT
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: CARCILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001447
SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 4692 LENGTH: 380
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                        CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
                                                                                                                     TITLE OF INVENTION: GENETIC POLYMORPHISMS TITLE OF INVENTION: RHEUMATOID ARTHRITIS, FILE REFERENCE: CL001455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/372,246 PRIOR FILING DATE: 2002-04-12 NUMBER OF SEQ ID NOS: 691
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                                                                                                                                                                                                                                                                                                                                              204 AVAMMHQERK 213
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100.0%; Pred. No.
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                                                                                                                                        OF DETECTION AND USES
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1 AVAMMHQERK 10

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CURRENT APPLICATION NUMBER: US/60/465,241
CURRENT FILING DATE: 2003-04-23
NUMBER OF SEQ ID NOS: 258418
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
TYPE: PRT
ORGANISM: Homo Sapiens
US-60-465-241-4692
                                                                                                                                               PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 19
LENGTH: 380
TYPE: PRT
ORGANISM: Rattus norvegicus
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US-60-465-241-4692
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                                                                    US-09-936-883C-19
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                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 19, Application US/09936883C GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4692, Application US/60465241
GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
   Matches
                               Query Match
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                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: A Method for Detecting Megsin Protein and TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DplPCT CURRENT APPLICATION NUMBER: US/09/936,883C CURRENT FILING DATE: 2001-12-21 PRIOR APPLICATION NUMBER: JP 1999-75305 PRIOR FILING DATE: 1999-03-19
                                                                             FEATURE:
NAME/KEY: misc_feature
LOCATION: 51, 94
OTHER INFORMATION: Xaa is unknown.
Local Similarity
tes 8; Conserv
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204 AVAMMHQERK 213
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204 AVAMMHQERK 213
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                 Score 41;
Pred. No.
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Pred. No.
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Pred. No.
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                                   DB 10; Length 380;
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RESULT 9
US-60-443-566-4420
; Sequence 4420, Application US/60443566
; GENERAL INFORMATION:
; APPLICANT: CARGILL, Michele
; APPLICANT: BEGOVICH, Ann
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US-09-936-883C-21
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US-09-864-408A-6424
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APPLICANT: MIYATA, Toshio
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LENGTH: 368
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SEQ ID NO 6424
LENGTH: 131
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Best Local :
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CURRENT FILING DATE: 2001-05-24
PRIOR APPLICATION NUMBER: 60/206,690
PRIOR FILING DATE: 2000-05-24
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APPLICANT: Shimkets, Richard A.
TITLE OF INVENTION: Novel Human Polynucleotides and Polypeptides Encoded Thereby
FILE REFERENCE: 21402-012
CURRENT APPLICATION NUMBER: US/60/443,566
                  TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETILE REFERENCE: CL001447
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SOFTWARE: PatentIn Ver. 2.0
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Local Similarity 77.8%;
nes 7; Conservation
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Local Similarity 88.9%;
les 8; Conservative
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Pred. No. 3.6;
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                                    METHODS OF DETECTION AND USES THEREOF
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Best Local Similarity
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; ORGANISM: Homo sapiens
US-60-443-566-4420
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US-09-724-676-86949
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                                                                                                                                                                                                 Sequence 86949, Application US/09724676
GENERAL INFORMATION:
APPLICANT: Compugen LTD
TITLE OF INVENTION: Variants of alternative splicing
FILE REFERENCE: 129181.4 Compugen
CURRENT APPLICATION NUMBER: US/09/724,676
CURRENT FILLING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 97222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/60/443,566
CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4419
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SEQ ID NO 86949
LENGTH: 82
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APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
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NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 4420
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                                                                                                                                                TYPE: PRT
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                                                       Similarity 55. 5; Conservative
 AIAVLHEER
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Pred. No.
                                                                   Score 34;
Pred. No.
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Pred. No. 28;
                                                       ed. No. 33; Mismatches
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19;
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RESULT 12

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RESULT 14
US-10-219-051B-5879
Sequence 5879, Application US/10219051B
GENERAL INFORMATION:
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US-60-443-566-4418
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US-60-443-566-4418
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US-09-724-676A-86949
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LENGTH: 82
TYPE: PRT
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LENGTH: 82
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SEQ ID NO 5879
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                                                                                                                                    APPLICANT: The General Hospital Corporation doing business as Massachusetts General APPLICANT: Hospital / Bayer AG
TITLE OF INVENTION: Nucleotide sequences involved in pain
FILE REFERENCE: LeA 35693 Foreign Countries
CURRENT APPLICATION NUMBER: US/10/219,051B
CURRENT FILING DATE: 2003-05-09
PRIOR FILING DATE: 2001-08-14
PRIOR FILING DATE: 2001-08-14
                                 PRIOR APPLICATION NUMBER: US 60/346,382
PRIOR FILING DATE: 2001-11-01
PRIOR APPLICATION NUMBER: US 60/333,347
PRIOR FILING DATE: 2001-11-26
NUMBER OF SEQ ID NOS: 14715
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CURRENT FILING DATE: 2003-01-30
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SOFTWARE: FastSEQ for Windows Version 4.0
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Local Similarity 55.6%;
les 5; Conserva++...
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18 AIAVLHEER 26
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18 AIAVLHEER 26
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Pred. No. 33;
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Query Match
Best Local Similarity
"atches 5; Conservi
Search completed: July 11, 2003, 12:35:13 Job time: 10.4971 secs
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                                                                                                                                                                                             ; NAME/KEY: misc_feature
; LOCATION: (1)..(83)
; OTHER INFORMATION: Xaa=Unknown amino acid
US-10-219-051B-5882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
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Best Local S
Matches 5
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SOFTWARE: Perl script
SEQ ID NO 5882
LENGTH: 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 5882, Appli GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT FILING DATE: 2003-05-09
PRIOR APPLICATION NUMBER: US 60/312,147
PRIOR FILING DATE: 2001-08-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Nucleotide sequences involved in pain FILE REFERENCE: LeA 35693 Foreign Countries CURRENT APPLICATION NUMBER: US/10/219,051B
                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 60/333,347 PRIOR FILING DATE: 2001-11-26
                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 60/346,382 PRIOR FILING DATE: 2001-11-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: The General Hospital Corporation doing business APPLICANT: Hospital / Bayer AG
                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: misc_feature
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ORGANISM:
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AIAVLHEER
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                                                                                                                                Conservative
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Pred. No.
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Post-processing: Minimum Match 0%
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Perfect score:
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length: 2000000000
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Copyright (c) 1993 - 2003 Compugen Ltd.
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1 US-09-791-537-281
3 US-09-396-883A-2
4 US-10-091-442-34
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Sequence 34, Appl
Sequence 34, Appl
Sequence 2, Appli
Sequence 281, Appl
Sequence 2, Appli
Sequence 34, Appl
                                                                                                                                               Description
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| <b>4</b><br>U     | 44             | 43           | 42          | 41          | 40          | 39          | 38               | 37          | 36          | 35          | 34           | 33           | 32     | 31          | 30           | 29              | 28              | 27              | 26           | 25           | 24           | 23      | 22           | 21            | 20         | 19            | 18           | 17             | 16             | 15             | 14          | 13         | 12      | 11           | 10         | 9               | ω            | 7                 |
|-------------------|----------------|--------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|-------------|--------------|--------------|--------|-------------|--------------|-----------------|-----------------|-----------------|--------------|--------------|--------------|---------|--------------|---------------|------------|---------------|--------------|----------------|----------------|----------------|-------------|------------|---------|--------------|------------|-----------------|--------------|-------------------|
| 748               | 748            | 750.5        | 752         | 752         | 752         | 752         | 752              | 752         | 752         | 752         | 752          | 752          | 752    | 752         | $\sim$       | 1.3             | 4               | 754.5           | Φ            | (4)          | (4)          | 4.1     | 769          | σ             |            | ٥.            | 796.5        |                |                | ٥.             | 5           | 45         | 45      | 45           | 1477       | 1477            | 1477         | ū                 |
| 38.2              | ٠              | 38.3         | 38.4        | •           | ٠           |             | 38.4             | 8           | 8           | 38.4        | 38.4         | 38.4         | 38.4   | •           | •            |                 |                 | 38.5            | •            | •            | •            | 39.0    |              | 39.3          | •          | 40.7          | 40.7         | •              | •              | •              | 0           | 4          | 74.4    |              | 75.4       | 75.4            | 75.4         |                   |
| 390               | 390            | 425          | 413         | 413         | 390         | 390         | 390              | 390         | 390         | 390         | 390          | 390          | 390    | 390         | 390          | 425             | 425             | 425             | 425          | 423          | 405          | 405     | 394          | 394           | 395        | 379           | 379          | 379            | 379            | 379            | 379         | 368        | 368     | 368          | 380        | 380             | 380          | 380               |
| 20                | -              | 25           | 25          | 21          | 24          | 24          | 22               | 22          | 21          | 21          | 21           | 20           | 9      | 4           | _            | 27              | 24              | 24              | -            | 24           | 27           | 24      | <b>-</b>     |               | 22         | 25            | 24           | 24             | 22             | 22             | 16          | 25         | 23      | 19           | 25         | 23              | 19           | 25                |
| US-09-653-464B-10 | -US02-07215-13 | 10-113-113-2 | -10-162-749 | -09-760-492 | -10-094-944 | -10-037-417 | US-09-823-187-30 | -09-823-187 | -09-791-537 | -09-791-537 | -09-791-537- | -09-653-464E | 08-568 | 8-099-259-2 | -US02-07215- | US-60-341-362-4 | US-10-094-944-2 | US-10-024-427-2 | -US02-07215- | -10-023-634- | -60-341-362- | 23-634- | -US01-13360A | -US01-13360-5 | -09-823-18 | -10-144-678A- | -10-012-89   | -10-006-920-94 | -09-895-814-94 | -09-852-911-94 | -09-283-946 | -10-110-03 | -88     | -09-508-997A | -10-110-03 | S-09-936-883A-  | -09-508-997A | 0                 |
| e 10,             | ω,             | ,<br>N       | 106         | 106,        | 12,         | æ           | 30,              | e 29,       |             | 7612        | ω<br>!       | e o          | 'n     | 2           | 12,          | 4               | ې<br>د          | e 2, Appl       | 2, 1         | 83,          | equence 12,  | e 82,   | 59,          | 59,           |            | 946           | equence 946, | equence 946,   | equence 946,   | 946            | 'n          | ,<br>O     | 21, App | equence 6,   | 4          | equence 19, App | e 4, App     | Sequence 2, Appli |

## ALIGNMENTS

RESULT 1

US-08-091-028A-34
; Sequence 34, Application US/08091028A
; Sequence 34, Application US/08091028A
; Sequence 34, Application US/08091028A
; APPLICANT: TSUJIMOTO, Masafumi
 APPLICANT: TAMSA, Fuyuki
; APPLICANT: TAMSA, Fuyuki
; APPLICANT: TAMSA, Fuyuki
; APPLICANT: TAMSA, Nobuhiro
 APPLICANT: TSUJIMO, Nobuhiro
 APPLICANT: KURHARA, Tatsuya
; APPLICANT: YAMAICHI, Kozo
; APPLICANT: YAMAICHI, Kozo
; APPLICANT: YAMAICHI, Nozomi
 TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR.
 NUMBER OF SEQUENCES; 34
; CORRESPONDENCE ADDRESS:
 ADDRESSEE: Burns, Doane, Swecker & Mathis
 STREET: George Mason Bldg., Washington & Prince Sts.
 CITY: Alexandria
 STRIE: Virginia
 COUPUTRY: United States
 IT : 23313-1404
; MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION NUMBER: US/08/091,028A

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RESULT 2
US-09-140-719-34
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                                                                                                                                                            Sequence 34, Applicat GENERAL INFORMATION:
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-6620
INFORMATION FOR SEO ID NO: 34:
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: REA, TERESA STANEK
REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 0015
TELECOMMUNICATION INFORMATION:
                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
CORRESPONDENCE
ADDRESSEE: F
                        APPLICANT: YAMAGUCHI, NOZOMI
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION
NUMBER OF SEQUENCES: 34
                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ocal Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                             FLFVIRKDDIILFSGKVSCP
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                                                                                                                                                                                                                                                                                              DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP 360
                                                                                                                                                                                                                                                                                                                              LPENDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRALGLKDIF
                                                                                                                                                                                                                                                                                                                                            WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
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                                                                                                                                                                                                                                                                                DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP 360
                                                                                                                                                                       Application US/09140719
                                                                                 MIURA, Kenju
ISHIDA, Nobuhiro
                                                                                                                    TSUROUOKA, Nobuo
                                                          KURIHARA, Tatsuya
YAMAICHI, Kozo
                                                                                                         NAKAZATO, Hiroshi
                                                                                                                                   TSUJIMOTO, Masafumi
IWASA, Fuyuki
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Pred. No. 1.1e-179;
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; TOPOLOGY: linear; MOLECULE TYPE: protein US-09-140-719-34
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Best Local
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FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAR MAIOTHER
NAME: MCGOWAR MAIOTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (703) 836-202
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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REFERENCE/FOCKET NUMBER: 07
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 1
FILING DATE: 07-JUN-
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: 'IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Alexandria
STATE: Virginia
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                    FLFVIRKDDIILFSGKVSCP
                                                                                               DESKADLSGTASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
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FLFVIRKDDIILFSGKVSCP
                                                                         DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
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Pred. No. 1.1e-179;
; Mismatches 0;
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Sequence 281, Application US/09791537

GENERAL INFORMATION:
APPLICANT: Blonomix, Inc.
APPLICANT: Debe, Derek
APPLICANT: Debe, Derek
APPLICANT: Debe, Derek
TITLE OF INVENTION: METHODS OF USE THEREOF
FILE REFERENCE: 261/210
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT APPLICATION NUMBER: US/09/791,537
CURRENT FILING DATE: 2001-02-22
NUMBER OF SEQ ID NOS: 153055
SOFTWARE: PATENTIN VERSION 3.0
SEQ ID NO 281
LENGTH: 380
TYPE: PRT
ORGANISM: Homo sapiens
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GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: Meggin Protein
FILE REFERENCE: SHIM-004
CURRENT FILLING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: US/09/508,997A
CURRENT FILLING DATE: 1997-09-275302
PRIOR APPLICATION NUMBER: JP 09-275302
PRIOR FILING DATE: 1997-09-22
UNUMBER OF SEQ ID NOS: 44
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 2
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; TYPE: PRT
; ORGANISM: HOMO S
US-09-508-997A-2
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US-09-791-537-281
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US-09-508-997A-2
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US-09-936-883A-2
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TYPE: PRT
ORGANISM: Homo s
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Local Similarity 100.0%;
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                                   LYDAKVERVDFTNHLEDTRRNINKWVENETHGKIKNVIGEGGISSSAVMVLVNAVYFKGK 180
                                                                                     NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK 120
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Query Match
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FLFVIRKDDIILFSGKVSCP 380
                                           DESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
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Pred. No. 1.1e-179;
; Mismatches 0;
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Sequence 2, Application US/09936883A GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio CURRENT APPLICATION NUMBER: US/09/936,883A CURRENT FILING DATE: 2001-12-21 PRIOR APPLICATION NUMBER: JP 199-75305 PRIOR FILING DATE: 1999-03-19 PRIOR APPLICATION NUMBER: JP 199-306623 PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21 SOFTWARE: Patentin Ver: 2.0 TITLE OF INVENTION: A Method for Detecting TITLE OF INVENTION: Thereof FILE REFERENCE: F2-101DP1PCT Megsin Protein and Use

Score 1959; DB 23; Pred. No. 1.1e-179;

Mismatches

Indels Length

0;

Gaps

60

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RESULT 6
US-10-091-442-34
; Sequence 34, Application
; GENERAL INFORMATION:
APPLICANT: TSUJI;
INASP
TOPOLOGY: linear;

MOLECULE TYPE: protein

SEQUENCE DESCRIPTION: SEQ ID

US-10-091-442-34
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                                                                                          INFORMATION FOR SEQ ID NO: 34:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                    REFERENCE/DOCKET NUMBER: 001560-247 TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002 CLASSIFICATION: <Unknown>
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                                                                TYPE:
                                                                                                                                                                                   NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,3
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CITY: Alexandria
STATE: Virginia
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                                                                              LENGTH: 380 amino acids
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YAMAICHI, Kozo
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FITTLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL PROLIFERATIVE
FILE REFERENCE: SHIMO15

CURRENT APPLICATION NUMBER: US/10/110,030

CURRENT FILING DATE: 2002-04-03

PRIOR APPLICATION NUMBER: 11/285736

PRIOR APPLICATION NUMBER: 10/285736

PRIOR FILING DATE: 1999-10-06

NUMBER OF SEQ ID NOS: 15

SOFTWARE: FASTSEQ FOR WINDOWS VERSION 4.0

SEQ ID NO 2

SEQ ID NO 2

LENGTH: 380

TYPE: PRT
ORGANISM: Homo sapiens

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                                                                                                                                     NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
    WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
               WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRYNGGINMYVL
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Pred. No. 1.1e-179;
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Pred. No. 1.1e-179;
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241 LPENDLSEIENKLTFQNLMEWTNPRRMTSKYVEVFFPQFKIEKNYEMKQYLRALGLKDIF
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Length

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240 180 180 120

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RESULT 9
US-09-936-883A-19
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; GENERAL INFORMATION:
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US-09-508-997A-4
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GENERAL INFORMATION:
APPLICANT: MIYATA, Toshio
TITLE OF INVENTION: Megsin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICATION RUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
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PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
SOFTWARE: Patentin Ver. 2.0
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LOCATION: 51, 94
OTHER INFORMATION: Xaa 1s unknown.
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TYPE: PRT
ORGANISM: Rattus rattus
FEATURE:
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73.48;
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Pred. No. 3.8e-133;
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PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP
PRIOR FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 21
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 19
LENGTH: 380
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                       SUP IN NO 4
SEQ ID NO 4
                                                                                           Sequence 4, Application US/10110030
GENERAL INFORMATION:
APPLICANT: Miyata, Toshio
TITLE OF INVENTION: ANIMAL MODEL FOR MESENGIAL
TITLE OF INVENTION: NEPHRITIS
FILE REFERENCE: SHIM015
CURRENT APPLICATION NUMBER: US/10/110,030
CURRENT FILING DATE: 2002-04-03
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TITLE OF INVENTION: A Method for Detecting Megsin Protein and Use
TITLE OF INVENTION: Thereof
FILE REFERENCE: F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883A
CURRENT FILING DATE: 2001-12-21
                                                          PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
NUMBER OF SEO ID NOS: 15
                                                 SOFTWARE: FastSEQ
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LOCATION: 51, 94
OTHER INFORMATION: Xaa is unknown
LENGTH: 380
TYPE: PRT
ORGANISM: Rattus norvegicus
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ORGANISM: Rattus
FEATURE:
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300

360

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Sequence 6, Application US/09508997A
GENERAL INFORMATION:
APPLICANT: MIYATA, TOShio
TITLE OF INVENTION: MegSin Protein
FILE REFERENCE: SHIM-004
CURRENT APPLICATION NUMBER: US/09/508,997A
CURRENT FILING DATE: 2000-06-27
PRIOR APPLICATION NUMBER: UP 09-275302
PRIOR FILING DATE: 1997-09-22
NUMBER OF SEQ ID NOS: 44
SOFTWARE: PATENTION Ver. 2.0
SEQ ID NO 6
LENGTH: 368
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Matches 279
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56; Mismatches 45;
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Pred. No. 2.5e
53; Mismatches
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Best Local Similarity
Matches 270; Conserv
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APPLICANT: MIYATA, Toshio
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                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/936,883A CURRENT FILING DATE: 2001-12-21 PRIOR APPLICATION NUMBER: JP 1999-75305 PRIOR FILING DATE: 1999-03-19 PRIOR APPLICATION NUMBER: JP 1999-306623 PRIOR FILING DATE: 1999-10-28 PRIOR FILING DATE: 1999-10-28 NUMBER OF SEQ ID NOS: 21
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53; Mismatches 45;
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APPLICANT: Atax, Daniel E.
APPLICANT: Hubert, Rene S.
APPLICANT: Hubert, Rene S.
APPLICANT: Leong, Kahan
APPLICANT: Raitano, Arthur B.
APPLICANT: Raitano, Arthur B.
APPLICANT: Saffran, Douglas C.
TITLE OF INVENTION: PROSTAPIN GENE AND PROTEIN ANT FILE REFERENCE: 1703-005.US1
CURRENT APPLICATION NUMBER: US/09/283,946
CURRENT FILING DATE: 1999-04-01
EARLIER APPLICATION NUMBER: 60/080,167
EARLIER APPLICATION NUMBER: 60/085,720
EARLIER FILING DATE: 1998-03-31
EARLIER FILING DATE: 1998-05-15
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver. 2.0
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US-10-110-030-6
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; TYPE: PRT
; ORGANISM: Mus musculus
US-10-110-030-6
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CURRENT APPLICATION NUMBER: US/10/110,030
CURRENT FILING DATE: 2002-04-03
PRIOR APPLICATION NUMBER: 11/285736
PRIOR APPLICATION NUMBER: 11/285736
PRIOR FILING DATE: 1999-10-06
NUMBER OF SEQ ID NOS: 15
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
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Best Local Similarity 73.4
Matches 270; Conservative
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; ORGANISM: HUMAN PROSTAPIN CONSENSUS US-09-283-946-2
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Best Local Similarity
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                LPQSTLFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                   QYLRALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQ 348
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                                                                   SLLKPLGVTDLFNQVKADLSGMSPTKGLYLSKAIHKSYLDVSEEGTEAAAATGDSIAVKS
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RESULT 15
US-09-852-911-946
                                     SOFTWARE: FastSEQ for Windows Version SEQ ID NO 946 LENGTH: 379
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                                                                                                                                         APPLICANT: Skeiky, Yasir A.W.
APPLICANT: Hepler, William
APPLICANT: Hural, John
APPLICANT: McNeill, Patricia D.
APPLICANT: McNeill, Patricia D.
APPLICANT: Houghton, Raymond L.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C25
                                                                                      CURRENT APPLICATION NUMBER: US/09/852,911
CURRENT FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 947
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                  LENGTH: 37
ORGANISM: Homo sapiens
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Vedvick, Thomas
Carter, Darrick
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                                                         349 LPQSTLFRADHPFLFVIR--KDDIILFSGKVSCP 380
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Search completed: July 11, 2003, 12:27:41 Job time: 1197.09 secs

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Perfect score:
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    Score
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1: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

2: /cgn2_6/ptodata/1/paa/PCT_NEW_COMB.pep4:*

3: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

4: /cgn2_6/ptodata/1/paa/US06_NEW_COMB.pep4:*

5: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

6: /cgn2_6/ptodata/1/paa/US07_NEW_COMB.pep4:*

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Listing first 45 summaries
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0 US-09-936-883C-21

1 US-60-443-66-3717

4 US-60-455-444-5630

2 US-10-198-070-67

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| 181                               | 121<br>121                      | 61                                    | <b>p p</b>                             | atch<br>cal s<br>380                                                 | JIT 1 2910-10-10-10-10-10-10-10-10-10-10-10-10-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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US-10-126-052A-263
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PRIOR FILING DATE: 2001-04-18
PRIOR PPLICATION NUMBER: US 60/290,492
PRIOR FILING DATE: 2001-05-10
PRIOR FILING DATE: 2001-05-10
PRIOR APPLICATION NUMBER: US 60/339,245
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR APPLICATION NUMBER: US 60/350,34,370
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR APPLICATION NUMBER: US 60/334,370
PRIOR APPLICATION NUMBER: US 60/334,370
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SEQ ID NO 263
LENGTH: 380
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Best Local
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APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Lung Cancer,
TITLE OF INVENTION: Methods of Screening for Modulators
FILE REFERENCE: 018501-001530US
                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 60/372,246
PRIOR FILING DATE: 2002-04-12
NUMBER OF SEQ ID NOS: 691
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                                                                                                  DESKADLSGIASGGRLYISRMHKSYIEVTEEGTEATAATGSNIVEKQLPQSTLFRADHP
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Pred. No. 1.4e-181;
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; ORGANISM: Homo sapiens US-60-443-566-3006
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GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION
FILE REFERENCE: CL001455
CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 4692
LENGTH: 380
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CURRENT FILING DATE: 2003-01-30
NUMBER OF SEQ ID NOS: 25102
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3006
LENGTH: 380
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APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
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; NAME/KEY: misc_featu
; LOCATION: 51, 94
; OTHER INFORMATION: X
US-09-936-883C-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: A Method for Detecting MG
TITLE OF INVENTION: Thereof
FILE REFERENCE; F2-101DP1PCT
CURRENT APPLICATION NUMBER: US/09/936,883C
CURRENT FILING DATE: 2001-12-21
PRIOR APPLICATION NUMBER: JP 199-75305
PRIOR FILING DATE: 1999-03-19
PRIOR FILING DATE: 1999-03-19
PRIOR APPLICATION NUMBER: JP 1999-306623
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US-09-936-883C-19
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Matches
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NUMBER OF SEQ ID NOS: 21
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 19
LENGTH: 380
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                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 380
TYPE: PRT
ORGANISM: Rattus
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                                                                                                                                                                                                                                                                                            tch 75.4%; Score 1477; DB 10; al Similarity 73.4%; Pred. No. 9e-135; 279; Conservative 56; Mismatches 45;
                                                                                                                                                                                                             61
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                                                                                                                                                                                                                                                    FLFVIRKDDIILFSGKVSCP
                                                 NTASGYGNSSNSOSGLOSOLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK
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US-60-443-566-3717
Sequence 3717, Application US/60443566
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                                NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 3717
LENGTH: 372
                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
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LENGTH: 368
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                                                                                                             TITLE OF INVENTION: GENETIC POLYMORPHISMS ASSOCIATED WITH
TITLE OF INVENTION: RHEUMATOID ARTHRITIS, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001447
CURRENT APPLICATION NUMBER: US/60/443,566
                                                                                                 CURRENT FILING DATE: 2003-01-30
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TYPE: PRT
 ORGANISM:
                 TYPE:
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73.48;
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Pred. No. 6e-133;
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APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
TITLE OF INVENTION: GENETIC POLYMORPHISMS /
TITLE OF INVENTION: RHEUMATOID ARTHRITIS,
                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/60/455,444
CURRENT FILING DATE: 2003-03-18
NUMBER OF SEQ ID NOS: 50986
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 5630
LENGTH: 372
                                                                                                                                                                                                                                                                  Matches
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Best Local Similarity
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                              WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-NGGINMYV 239
                                                               WYQARLQTVDFEQSTEETRKTINAWVENKTNGKVANLFGKSTIDPSSVMVLVNAIYFKGQ 167
                                                                                                                                                                                                   MGSLSTANVEFCLDVFKELNSNNIGDNIFFSSLSLLYALSMVLLGARGETEEQLEKVLHF
WQNKFQVRETVKSPFQLSEGKNVTVEMMYQIGTFKLAFVKEPQMQVLELPYVNNKLSMII
                                                                                                                                ------SHTVDSLKPGFKDSPKPDSNCTLSIANRLYGTKTMAFHQQYLSCSEK
                                                                                                                                                                NTASGYGNSSNSQSGLQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKDYIECAEK 120
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Pred. No. 3.
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3.6e-71;
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3.6e-71;
nes 126;
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US-60-465-241-5630
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US-60-465-241-5630
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CURRENT FILING DATE: 2003-04-23
NUMBER OF SEO ID NOS: 258418
SOFTWARE: FASTSEO for Windows Version 4.0
SEO ID NO 5630
LENGTH: 372
TYPE: PRT
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APPLICANT: CARGILL, Michele
APPLICANT: BEGOVICH, Ann
                                             Sequence 62, Application US/10198070 GENERAL INFORMATION:
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APPLICANT: AVERBACK, PAUL
APPLICANT: GEMMELL, JACK
TITLE OF INVENTION: PEPTIDES EFFECTIVE IN THE TREATMENT OF TUMORS AND OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
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                                                                                                                                                                                                                                                                                                                         WQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-NGGINMYV
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LENGTH: 392
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CURRENT APPLICATION NUMBER: US/10/198,070

CURRENT FILING DATE: 2002-07-19
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PRIOR APPLICATION NUMBER: 60/331,477
PRIOR FILING DATE: 2001-11-16
NUMBER OF SEQ ID NOS: 125
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TYPE: PRT
ORGANISM: Homo sapiens
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MRAQFKANHPFLFFIRHTHTNTILFCGKLASP 392
                        QSTLFRADHPFLFVIR--KDDIILFSGKVSCP 380
                                                                                 AVYFKGKWQSAFTKSETINCHFKSPKCSGKAVAMMHQERKFNLSVIEDPSMKILELRY-N 232
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US-10-198-070-67
US-10-198-070-67
Sequence 67, Application US/10198070
GENERAL INFORMATION:
APPLICANT: AVERBACK, PAUL
APPLICANT: AVERBACK, PAUL
APPLICANT: AVERBACK, PAUL
TITLE OF INVENTION: CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION CONDITIONS REQUIRING THE REMOVAL OR DESTRUCTION CONTROL OF INVENTION INDEED: US/10/198,070
CURRENT APPLICATION NUMBER: US/10/198,070
CURRENT APPLICATION NUMBER: 60/306,151
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR APPLICATION NUMBER: 60/306,150
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TITLE OF INVENTION: CONDITIONS REQUIRING TH
TITLE OF INVENTION: CONDITIONS REQUIRING TH
TITLE OF INVENTION: CELLS
FILE REFERENCE: 59003.000008
CURRENT APPLICATION NUMBER: US/10/198,070
CURRENT FILING DATE: 2002-07-19
PRIOR APPLICATION NUMBER: 60/306,161
PRIOR FILING DATE: 2001-07-19
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR APPLICATION NUMBER: 60/306,150
PRIOR APPLICATION NUMBER: 60/301,477
PRIOR FILING DATE: 2001-11-16
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US-10-198-070-70
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                                                                                                                                                                                                                                                    SEQ ID NO 70
LENGTH: 392
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Best Local Similarity
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SOFTWARE: PatentIn Ver.
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                                                                                                                                                                                                                                    TYPE: PRT
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                                                                                                                                                                                                                                                      392
                                                                                                                                   Similarity
                                     LKPLGVTDLFNQVKADLSGMSPTKGLYLSKAIHKSYLDVSEEGTEAAAATGDSIAVKSLP
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 -NTASGYGNSSN-SQSG-LQSQLKRVFSDINASHKDYDLSIVNGLFAEKVYGFHKD 113
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                                                                                                                 41.8%; Score 819; DB 12;
43.1%; Pred. No. 7.7e-71;
rative 80; Mismatches 131;
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Pred. No. 6.2e-71;
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US-10-294-025-946
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Matches
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 946
LENGTH: 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 946, Application US/10294025 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xu, Jiangchun
APPLICANT: Stolk, John A.
APPLICANT: Stolk, John A.
APPLICANT: Kalos, Michael D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: DIAGNOSIS OF PROSTATE CANCER
FILE REFERENCE: 210121.427C29
CURRENT APPLICATION NUMBER: US/10/294,025
CURRENT FILING DATE: 2002-11-12
 349
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                                                                                                                                                                                                                                                                                                                                                 61 SHTVDSLKPGFKDSPKCSQAGRIHSEFGVEFSQINQPDSNCTLSIANRLYGTKTMAFHQQ 120
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 LPQSTLFRADHPELFVIR - - KDDIILFSGKVSCP
                                                           QYLRALGLKDIFDESKADLSGIASGGRLYISRMMHKSYIEVTEEGTEATAATGSNIVEKQ 348
                                                                                                                                     -NGGINMYVLLPEN--DLSEIENKLTFQNLMEWTNPRRWTSKYVEVFFPQFKIEKNYEMK 288
                                                                                                                                                                                                                                                                      YLSCSEKWYQARLQTVDFEQSTEETRKMINAWVENKTNGKVANLFGKSTIDPSSVMVLVN
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                                       SLLKPLGVTDLFNQVKADLSGMSPTKGLYLSKAIHKSYLDVSEEGTEAAAATGDSIAVKS
                                                                                                                   VNNKLSMIILLPVGIANLKQIEKQLNSGTFHEWTSSSNMMEREVEVHLPRFKLEIKYELN
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Pred. No. 1.1e-68;
Pred. No. 1.2e-68;
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Gaps

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FILE REFERENCE: GG50025

CURRENT APPLICATION NUMBER: US/10/258,951

CURRENT FILING DATE: 2002-10-28

PRIOR APPLICATION NUMBER: PCT/US01/1360

PRIOR APPLICATION NUMBER: 60/199,963

PRIOR FILING DATE: 2000-04-27

PRIOR FILING DATE: 2000-05-11

PRIOR APPLICATION NUMBER: 60/207,087

PRIOR APPLICATION NUMBER: 60/207,087

PRIOR FILING DATE: 2000-05-12

PRIOR APPLICATION NUMBER: 60/207,546

PRIOR APPLICATION NUMBER: 60/207,546

PRIOR APPLICATION NUMBER: 78

SOFTWARE: FASTSEQ for Windows Version 3.0

SEQ ID NO 59

LENGTH: 394

TYPE: PRT

ORGANISM: Homo Sapiens
Search completed: July 11, 2003, 12:35:14 Job time : 358.189 secs
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APPLICANT: Murdock, Paul R.
APPLICANT: Rizvi, Safia K.
APPLICANT: Smith, Randall E
APPLICANT: Xiang, Zhaoying
APPLICANT: Kabnick, Karen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 39.3%; Score 769; DB 12; Length 394; Best Local Similarity 40.1%; Pred. No. 5.6e-66; Matches 158; Conservative 88; Mismatches 134; Indels 14;
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APPLICANT: Xie, Qing
TITLE OF INVENTION: NOVEL COMPOUNDS
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                                                                                                                                                                                                                                                                                                      235 INMYVLLPEND-----LSEIENKLTFONLMEWTNPRRWTSKYVEVFFPOFKIEKNYEMK 288
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Rizvi, Safia K.
Smith, Randall F.
Xiang, Zhaoying
Kabnick, Karen
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                                                                                    LRSWVEFNANHPFLFFIRHNKTQTILFYGRVCSP 394
                                                                                                                             LPOSTLFRADHPFLFVIR--KDDIILFSGKVSCP 380
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Result
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Maximum DB seq length: 2000000000
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Perfect score:
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Match
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232.223 Million cell updates/sec
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1: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1990.DAT:*

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3: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1993.DAT:*

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Human megakaryocyt
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Rat megsin protein
Drosophila melanog
Drosophila melanog
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| Amino acid sequenc | AAB31568 | 22 | 201    | 65.4 | 34 |
|--------------------|----------|----|--------|------|----|
| Human PRO polypept | AAU29327 | 22 | 201    |      | 34 |
|                    | AAW99070 | 20 | 201    | 65.4 | 34 |
| Porphorymonas ging | AAY34319 | 20 | 201    |      | 34 |
|                    | AAW99071 | 20 | 195    |      | 34 |
|                    | AAY34440 | 20 | 195    | 65.4 | 34 |
| ŏ                  | AAR22263 | 13 | 185    | 65.4 | 34 |
| human              | ABG16246 | 22 | . 159  | 65.4 | 34 |
| Human novel        | ABG66682 | 23 | 123    | 65.4 | 34 |
| Human novel        | ABG66683 | 23 | 120    | 65.4 | 34 |
|                    | AAU14892 | 22 | 105    | 65.4 | 34 |
| Extended humar     | AAY36023 | 20 | 70     | 65.4 | 34 |
| Human nervous syst | ABB15580 | 22 | 60     | 65.4 | 34 |
| Human calcium sens | AAY45000 | 21 | 974    | 67.3 | 35 |
| Human immunodefici | AAU96794 | 23 | 891    | 67.3 | 35 |
| ENVRN sequence fro | AAP82677 | ဖ  | 891    | 67.3 | 35 |
| Human immunodefici | AAU96804 | 23 | 890    | 67.3 | 35 |
| Human immunodefici | AAU96799 | 23 | 890    | 67.3 | 35 |
| Human immunodefici | AAU96798 | 23 | 890    | 67.3 | 35 |
| HIV-2 ROD isolate  | AAY51984 | 21 | 858    | 67.3 | 35 |
|                    | AAR20604 | 13 | 858    | 67.3 | 35 |
| encoded            | AAP81779 | ø  | 858    | 67.3 | 35 |
| env                | AAP80806 | 9  | 858    | 67.3 | 35 |
| Sequence of env pr | AAP80803 | φ  | 856    | 67.3 | 35 |
|                    | AAU19916 | 22 | 90     | 67.3 | 35 |
| CDNA SEC           | ABB10308 | 22 | 90     | 67.3 | 35 |
| Human nervous syst | ABB17012 | 22 | 90     | 67.3 | 35 |
| Ħ                  | AAU87605 | 22 | 90     | 67.3 | 35 |
|                    | ABB66269 | 22 | 2176   | •    | 36 |
| hila               | ABB62359 | 22 | 1354   | 69.2 | 36 |
| _                  | ABP35700 | 23 | 863    | Ö    | 36 |
| ројур              | AA009905 | 22 | 64     | 9    | 36 |
| ZBC protei         | ABP35638 | 23 | . 1030 | 71.2 | 37 |
| Rat A3 adenosine r | AAR79450 | 16 | 320    | 71.2 | 37 |
| Human megakaryocyt | AAR57107 | 15 | 9      | 71.2 | 37 |

## ALIGNMENTS

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RESULT 1
AAR48379
ID AAR4
XX AAR4
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XX Huma
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WPI; 1994-058782/08
N-PSDB; AAQ56670.
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Tsujimoto M,
                                                                                                                                                                                                                                                                                                                                                                                             17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-FEB-1994.
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                                                                                                                                                                                                                                                         (SUNR ) SUNTORY LTD. (TSUJ/) TSUJIMOTO M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                               Iwasa F, Kuri
M, Tsuruoka N,
                                                                                                                                                                                                                                                                                                                                                                                             92JP-0212305
93JP-0067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93EP-0305654.
                                                                                                                                                                            Kurihara T,
                                                                                                                          ara T, Miura K, Nakazato
Yamaguchi N, Yamaichi K;
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Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.

Human megakaryocyte differentiation factor.

16-AUG-1994 AAR48379;

(first entry)

AAR48379 standard; Protein; 380 AA.

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Best Local S
Matches 9
  Best Lo
                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human MDF can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE and exhibits an isoelectric point of 6.0-7.0.
                                                                      This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in messangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells.
                                                                                                                                                                                                                                (KURO/)
                                                                                                                                                                                                                                                                                                                                                      Homo
                                           Sequence
                                                                 cells,
                                                                                                                               Claim 1; Page 62-64; 100pp; Japanese.
                                                                                                                                                     Megsin protein expressed specifically
                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                       WPI;
                                                                                                                                                                                                            Miyata T;
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                                                                                                                                                                                                                                                                                                           01-APR-1999
                                                                                                                                                                                                                                                                                                                                WO9915652-A1
                                                                                                                                                                                                                                                                                                                                                                          human; rat; murine.
                                                                                                                                                                                                                                                                                                                                                                                     Megsin; mesangial cell;
                                                                                                                                                                                                                                                                                                                                                                                                         Human megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY08254;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY08254 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 7; Page 30-32; 47pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            decrease in platelets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New megakaryocyte differentiation epidermoid carcinoma cells, used t
           Local
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DB; AAX56712.
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                                                                such as
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MIYATA T.
 Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
9; Conserv
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                                            380
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; ilarity 100.0%; Conservative (
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         protein
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                                                               IgA
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                                                                                                                                                                                                                                                                                     98WO-JP04269
                                                               nephropathy.
          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                     treatment;
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0;
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Score 52; DE Pred. No. 0.0); Mismatches
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Pred. No.
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to treat conditions
                                                                                                                                                                                                                                                                                                                                                                                  diagnosis; disease;
                                                                                                                                                   in mesangial cells
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0.092;
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                    DB 20;
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                    Length 380;
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Indels
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is involving
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RESULT 4
AAB83075
ID AAB8
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AC AAB8

AAB83075

standard; Protein; 380

AAB83075;

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RESULT 3
AAB24142
ID AAB2
XX AAB24X
XX AAB2
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                                                                                                         Matches
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                                                                                                                                                           Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Evaluating renal function comprises assaying megsin protein biological sample \ \ \cdot
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diagnosis; biological sample; blood;
                                                                                                                                                                                                                   Sequence
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28-OCT-1999;
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                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        present invention describes a method for evaluating
188
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FUSO PHARM IND LTD
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munoglobulin A; detection; renal function; renal
                                                                                                      similarity
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                                                  SETINCHEK
SETINCHFK
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                                                                                                                                                                                                                   380 AA;
                                                                                                         Conservative
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99JP-0306623
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196
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Pred. No.
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                                                                                                                               0.092;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    regulated; nephropathy;
                                                                                                                                                           21;
                                                                                                         0,
                                                                                                                                                        Length
                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     renal function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disorder;
                                                                                                      0;
                                                                                                      Gaps
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RESULT 5
AAY08255
ID AAY0
XX AAY0
AC AAY0
DT 14-J
XX Hegs
KW Hegs
KW huma
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XX WO95
PN WO95
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                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is human megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useful for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                  01-APR-1999.
                                                                              Rattus rattus
                                                                                                   Megsin; mesangial cell; human; rat; murine.
                                                                                                                                    Rat megsin protein.
                                                                                                                                                           14-JUL-1999
                                                                                                                                                                                  AAY08255;
                                                                                                                                                                                                        AAY08255 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 4; Page 44-46; 62pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-300136/31.
N-PSDB; AAF82438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-JUL-2001
           22-SEP-1998;
                                                       W09915652-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                           Local Similarity
nes 9; Conserv
                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                            SETINCHEK
                                                                                                                                                                                                                                                               SETINCHEK 196
                                                                                                                                                                                                                                                                                                                                                        380 AA;
                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-JP06988.
                                                                                                                                                           (first entry)
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           98WO-JP04269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99JP-0285736
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                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                               treatment;
                                                                                                                                                                                                        380
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                                                                                                                                                                                                                                                                                                          Score 52; DE
Pred. No. 0.0
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                                                                                                               diagnosis;
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                                                                                                                                                                                                                                                                                                                                22;
                                                                                                               disease;
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                                                                                                              IgA nephropathy;
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ARBSULT 6
AAB24150
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AAB24150
AAB24150
AAB24150
AAB24150
AAB24
AC AAB2
XX AB2
XX Rat
XX Megs
XX IGA:
XX Key
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Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
Evaluating renal function comprises assaying megsin biological sample \,\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                                                                             Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB24150 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 69-72; 100pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; AAX56712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Miyata T;
                                                                     WPI; 2000-611642/58
N-PSDB; AAC55238.
                                                                                                                                                                                   (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                17-MAR-2000; 2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200057189-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rat megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cells, such as IgA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-276983/23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-SEP-1997;
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                                                                                                                                             Ή.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                99JP-0075305
99JP-0306623
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "unspecified'
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ID
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26;
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the rat megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rat;
                                                                                                         The present invention relates to a novel antibody which recognises peptide consisting of residues 341-354 of rat megsin protein. The p sequence is the protein sequence for rat megsin, which was used in present invention. Mesgin is highly expressed in renal mesangial ce
                                                                                                                                                                                                                                                     N-PSDB;
                                                                                                                                                                                                                                                                   WPI;
                                         Sequence
                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                           New antibody recognizing a partial sequence of rat megsin protein diagnosis of mesangium proliferative nephritis
                                                                                                                                                                                                                                                                                              Miyata
                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200148019-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus norvegicus
                                                                                                                                                                                                                                                                                                                        (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                  28-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                            26-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rat megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAG64286;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAG64286 standard; Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                     sent invention. Mesgin is highly expressed in invention. Mesgin is highly expressed in invention and its level is elevated in mesangium proliferative nephritis. Assay of its level is elevated in mesangium proliferative nephritis. Assay of its level is elevated in mesangium proliferative nephritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      method comprises assaying megsin protein in biological sample. Also
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DB; AAH48181.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        megsin;
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5; Conserv
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                                         380
                                                                                                                                                                               Page 54-56; 63pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     renal mesangial cell; mesangium proliferative nephritis
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75.0%;
55.6%;
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Pred. No. 26;
4; Mismatches
Score
Pred.
                                                                                                                                                                                 Japanese
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26;
            22;
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              Length 380;
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RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence may be introduced into a mouse to produce an animal model comesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useffor analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                ABB62242;
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N-PSDB; AAF82439.
                                                 26-MAR-2002
                                                                                                                                              ABB62242 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse model for mesangial cell proliferative nephritis for development
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(MIYA/) MIYATA T.
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                                                                                                                                                                                                                                                                                                                                                                              Conservative
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Drosophila melanogaster polypeptide SEQ ID NO 13518

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RESULT 10
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Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The invention useful in developmental biology and in elucidating cell signalling and cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABL18176-ABL30511), expressed DNA sequences (ABL01840-ABL16175) and the encoded proteins
                                                                                                                                                                                                   Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                       Drosophila melanogaster polypeptide SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 13518; 21pp + Sequence Listing; English
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                                                                                                                                                                                                                                                                              Drosophila;
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11-JUL-2000; 2000US-0614150.
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  23-MAR-2000; 2000US-191637P
                                              23-MAR-2001; 2001WO-US09231
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ABL06345
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RESULT 11
AAR57107
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Best Local Similarity
Thes 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated nucleic acid detection reagent capable of detecting 1000 or more genes from Drosophila. The inventiuseful in developmental biology and in elucidating cell signalling cell-cell interactions in higher eukaryotes for the development of insecticides, therapeutics and pharmaceutical drugs. The invention discloses genomic DNA sequences (ABLIG176-ABL30511), expressed DNA sequences (ABLG175) and the encoded proteins
                                                    17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                    Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated nucleic acid genes from Drosophila and
Ishida N,
                                                                                     19-JUL-1993;
                                                                                                          23-FEB-1994
                                                                                                                                EP583884-A.
                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                              16-AUG-1994
                                                                                                                                                                                                                                                                                                                                  AAR57107;
                                                                                                                                                                                                                                                                                                                                                       AAR57107 standard; peptide; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 9252;
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                   (SUNR ) SUNTORY LTD.
(TSUJ/) TSUJIMOTO M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ABB57737-ABB72072)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                           marrow transplantation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-656860/75.
DB; ABL04923.
                                                                                                                                                                                                                                                                                     megakaryocyte
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                                                                                                                                                                                                                                                                                                           (first entry)
                                                    92JP-0212305
93JP-0067339
                                                                                      93EP-0305654
                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                      /note-
                                                                                                                                                                          /note=
                                                                                                                                                                                                                                                                                       differentiation
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Kurihara
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                                                                                                                                                     "not determined"
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                                                                                                                                                                                                                                           cancer chemotherapy.
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Pred. No.
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RESULT 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                Civelli O,
 determining the
                 A3 adenosine receptors produced from cloned genes may be
                                        Claim 1;
                                                           DNA and protein sequence(s) for novel recombinant vector conty the DNA, DNA transformed with the vector.
                                                                                                               WPI;
                                                                                                                                                                        03-MAR-1992;
02-AUG-1993;
                                                                                                                                                                                                                                                                                   restriction
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                                                                                                                                                                                                     03-MAR-1992;
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                                                                                                                                                                                                                                                                Rattus rattus
                                                                                                                                                                                                                                                                                                     A3 adenosine receptor; screening; identification; agonist;
                                                                                                                                                                                                                                                                                                                          Rat A3 adenosine receptor
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                                                                                                                                                                                                                                                                                                                                                                                    AAR79450 standard;
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                                                                                                             1995-292492/38
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                                      Figure 1; 29pp; English
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fragment
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93US-0101435
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           for A3
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                                                                                                                                                                                                                                                                                 probe; detection; genetic disorder; RFLP;
ent length polymorphism.
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adenosine receptor activity, of adenosine agonist or antago
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 37; DB
Pred. No. 7.8e
0; Mismatches
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                                                                   adenosine probe(s),
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antagonist drug
                                                                     receptor, and cell o
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RESULT 13
ABP35638
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             The invention relates to improving the production of a secondary cometabolite by a fungus. This involves modulating the expression of at cleast one ZBC (zinc binuclear cluster protein) gene in a manner to compound the yield of the secondary metabolite. Methods of the invention compound the yield of the secondary metabolite. Methods of the invention compound the production of the secondary metabolite e.g. compounds the production of the secondary metabolite e.g. compounds to the compounds, an immunosuppressant (such as cyclosporin A), compounds, an ergot alkaloid (such as ergotamine), an angiogenesis inhibitor (such compounds, a qualton), a glucan synthase inhibitor, gliotoxin family of compounds, compounds, and angual toxin, a modulator of cell surface receptor signalling, a plant compound. The method results in a decrease in fermentor run-time, a compound. The method results in a decrease in fermentor run-time, a compound toxin the size of the fermentor required for the production of compounds required for the production, which translates into decrease in the bloomass required for the production, which translates into decreased the content of the production, which translates into decreased the content of the production, which translates into decreased the content of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of th
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                 New method for improving the production of a secondary metabolite e.g. antineoplastic agent, ergot alkaloid from a fungus involves modulation of the expression of at least one zinc binuclear cluster protein gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secondary metabolite; fungus; ZBC gene; zinc binuclear cluster antibacterial; beta-lactam; anti-hypercholesterolaemic; lovasti mevastatin; immunosuppressant; cyclosporin A; ergot alkaloid; e angiogenesis inhibitor; ovalicin; glucan synthase inhibitor; gl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           solution. The DNA or its fragments may also be used as probes determine tissue distribution of the receptors, to detect the presence or absence of the gene or in RFLP to detect genetic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fungal ZBC
                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-SEP-2000; 2000US-233564P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             insecticide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fungal toxin; cell surface receptor;
insecticide; antineoplastic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-352005/38.
DB; ABN79827.
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gliotoxin;
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                                                                                                                                                                                                                                                           The invention relates to human polynucleotides (AAI79941-AAI93841) and the encoded proteins (AA000010-AA013910) that exhibit activity elating to cytokine, cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopoissis regulating activity, tissue growth factor activity, immunomodulatory activity and activity/inhibin activity and may be useful in the diagnosis and/or activity in the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the contro
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                                                                          Note: The sequence data for this patent did no specification, but was obtained in electronic at ftp.wipo.int/pub/published_pct_sequences.
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Matches 6; Conserv
                                                                                                                                             as lovastin or mevastatin), an immunosuppressant (such as cyclosporin A), an ergot alkaloid (such as ergotamine), an angiogenesis inhibitor (such as ovalicin), a glucan synthase inhibitor, gliotoxin family of compounds, a fungal toxin, a modulator of cell surface receptor signalling, a plant growth regulator, a pigment, an insecticide, or an antineoplastic compound. The method results in a decrease in fermentor run-time, a decrease in the size of the secondary metabolite, or a decrease in the guivalent amounts of the secondary metabolite, or a decrease in the biomass required for the production, which translates into decreased waste that must be handled in downstream processing. The sequences given in records ABP35575-ABP35722 represent ZBC proteins. Note: The sequence data for this patent did not form part of the printed specification, but was obtained directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to improving the production of a secondary metabolite by a fungus. This involves modulating the expression of at least one ZBC (zinc binuclear cluster protein) gene in a manner to improve the yield of the secondary metabolite. Methods of the invention may be used for improving the production of the secondary metabolite e.g. antibacterial (such as beta-lactam), an anti-hypercholesterolaemic (such antibacterial (such as beta-lactam), an anti-hypercholesterolaemic (such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Secondary metabolite; fungus; ZBC gene; zinc binuclear cluster protein; antibacterial; beta-lactam; anti-hypercholesterolaemic; lovastin; mevastatin; immunosuppressant; cyclosporin A; ergot alkaloid; ergotamine; angiogenesis inhibitor; ovalicin; glucan synthase inhibitor; gliotoxin; fungal toxin; cell surface receptor; plant growth regulator; pigment;
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Search completed; July 11, 2003, 11:54:17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
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| 45              | 44                                           | 43              | 42                | 41      | 40               | 39              | 38              | 37                | 36              | 35                | 34              | ω<br>ω          | 32                | <u>ω</u>         | 30               | 29               | 28                |
|-----------------|----------------------------------------------|-----------------|-------------------|---------|------------------|-----------------|-----------------|-------------------|-----------------|-------------------|-----------------|-----------------|-------------------|------------------|------------------|------------------|-------------------|
| 34              | 34                                           | 34              | 34                | 34      | 34               | 34              | 34              | ω<br>4            | 34              | 34                | 34              | 34              | 34                | 34               | 34               | 34               | 34                |
| 65.4            | 65.4                                         | 65.4            | 65.4              | 65.4    | 65.4             | 65.4            | 65.4            | 65.4              | 65.4            | 65.4              | 65.4            | 65.4            | 65.4              | 65.4             | 65.4             | 65.4             | 65.4              |
| 1088            | 1088                                         | 1088            | 1088              | 1088    | 1088             | 1088            | 1085            | 1085              | 1085            | 1085              | 1085            | 1085            | 1085              | 1079             | 1079             | 1079             | 1079              |
| 4               | w                                            | w               | N                 | 2       | _                | _               | 4               | w                 | ω               | N                 | N               | ب               | ب                 | 4                | w                | ω                | Ν                 |
| US-08-484-159-6 | US-08-484-719B-6                             | US-08-353-784-6 | US-08-943-986-6   | 80-     | US-08-484-565-6  | US-08-485-588-6 | US-08-484-159-5 | US-08-484-719B-5  | US-08-353-784-5 | US-08-943-986-5   | US-08-480-751-5 | US-08-484-565-5 | US-08-485-588-5   | US-08-484-159-8  | US-08-484-719B-8 | US-08-353-784-8  | US-08-943-986-8   |
| •               | Sequence 6, Appl.                            | •               | Sequence 6, Appli | •       | Sequence 6, Appl | •               | •               | Sequence 5, Appli | •               | Sequence 5, Appli | •               | •               | Sequence'5, Appli | Sequence 8, Appl | •                | Sequence 8, Appl | Sequence 8, Appli |
| μ.              | <u>;                                    </u> | ټ.              | <u> </u>          | <u></u> | ۳.               | <u> </u>        | <u></u>         | <b>j-</b> -       | -               | -                 | <b>j</b>        | -               | -                 | -                | μ.               | -                | -                 |

## ALIGNMENTS

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APPLICATION NUMBER: US/08/611,977
FILING DATE: 06-MAR-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION NUMBER: JP 4-212305
APPLICATION NUMBER: JP 4-212305
                                                                                                                                                   APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
ATTORNEY_AGENT INFORMATION:
NAME: MCGOWAD, MALCOLM K.
TELEFAX: (703) 836-2021 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                       NAME: MCGOWAN, MAICOLM K. 0 REGISTRATION NUMBER: 39,300 REFERENCE/DOCKET NUMBER: 001 TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: P.O. Box
CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: United States ZIP: 22313-1404
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5. 5972886
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IWASA, Fuyuki
TSUROUOKA, No. 5972886uo
NAKAZATO, Hiroshi
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5972886cmi
VENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIURA, Kenju
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9 amino acids

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                                 ; TOPOLOGY: 1:
; MOLECULE TYPE:
US-08-472-659-34
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 Query Match
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                                                                                                               TELEFAX: (703) 836-202 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tent No.
                                                                                                                                                              REFERENCE/DOCKET NUMBER: 001560-248
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: JP 5
FILING DATE: 04-MAR-1993
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/01
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                           APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 536
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RY: United States 22313-1404
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                                                                                                                                                                                                          McGowan, Malcolm K.
ATION NUMBER: 39,300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YAMAICHI, KOZO
YAMAGUCHI, NO. 5831030omi
MEGAKARYOCYTE DIFFERENTIATION FACTOR
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NAKAZATO, Hiroshi
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100.0%;
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Score 52;
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Pred. No. 2e+05;
Mismatches
DВ
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2
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Length 380;

RESULT 4

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US-08-474-661-34
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                                                        Best Local Similarity
Matches 9; Conserv
                                                                                      Query Match
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                                                                                                                                                                                                             TELEFAX: (703) 836-66 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 00 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 17-JUL-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM: PC-DO SOFTWARE: PatentIn Rela
                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                         LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/01 FILING DATE: 07-JUN-1995 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                          TELEPHONE:
188 SETINCHFK 196
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                            1 SETINCHFK 9
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                                                                                                                                                                                                                                                                                                    REA, TERESA STANEK
                                                                                                                                                              amino acid
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NAKAZATO, Hiroshi
                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                            (703)
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                                                                                                                                                                                                                         836-6620
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                                                                                                                                                                                                                                                                                                                                                JP 5-067339
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); Mismatches 0;
                                                                        Score 52; DB 2;
Pred. No. 0.028;
                                                         Mismatches
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                                                                                       DB 2;
                                                         0
                                                                                    Length 380;
                                                         Indels
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                                                         0;
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                                                                  Sequence 1, Application Patent No. 5831030 GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 34
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                        Query Match
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                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: MCGOWAN, MAICOIM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. 5972886omi
APPLICANT: YAMAGUCHI, NO. 5972886omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992 PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: P.O. Box
CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE: 14-JUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                    Local Similarity 100 es 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                1 SETINCHFK 9
||||||||
188 SETINCHFK 196
                                                                      INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
                                                                                                         Application US/08472659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/08611977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: Burns, Doane, Swecker & Mathis
TSUJIMOTO, Masafumi
IWASA, Fuyuki
TSUROUOKA, No. 5831030uo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TSUROUOKA, No. 5972886uo NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IWASA, Fuyuk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-MAR-1993
                                                                                                                                                                                                                                                                                   100.0%;
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                                                                                                                                                                                                                                                                                   Score 52; DB 2; Length 380; Pred. No. 0.028;
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Best Local :
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RESULT 6
US-08-474-661-1
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                                                                                                                                                                                                                               GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ...CTERISTICS:
9 amino acids
...PE: amino acid
STRANDEDNESS: s'.
TOPOLOGY: ''
TOPOLOGY: ''
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
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APPLICANT: YAMAICHI, KOZO

APPLICANT: YAMAGUCHI, No. 5831030omi

TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF EQUENCES: 34
                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 17-JUL-
PRIOR APPLICATION DATA:
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                                                                                                                                 APPLICANT:
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                                                                                                              APPLICANT:
                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                               Match 71.2%;
Local Similarity 87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 5 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/U
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: P.O. Box CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
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KURIHARA, TACSU3-
YAMAICHI, KOZO
YAMAGUCHI, KOZO
YAMAGUCHI, NO. 58742530mi
YAMAGUCHI, NO. 58742530mi
AVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
MORNICES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: Burns, Doane, Swecker & Mathis
P.O. Box 1404
                                                                                                                                                             IWASA, Fuyuki
TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                            ISHIDA, No. 5874253uhiro
KURIHARA, Tatsuya
                                                                                                                                             MIURA, Kenju
                                                                                                                                                                                              IWASA, Fuyu
                                                                                                                                                                                                               TSUJIMOTO, Masafumi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Release #1.0, Version #1.30
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                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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RESULT 7
US-08-101-435-4
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APPLICATION NUMBER: US 08/091,028

FILING DATE: 14-JUL-1993

APPLICATION NUMBER: JP 4-212305

FILING DATE: 17-JUL-1992

PRIOR APPLICATION DATA:

APPLICATION NUMBER: JP 5-067339

FILING DATE: 04-MAR-1993

ATTORNEY/AGENT INFORMATION:

NAME: REA, TERESA STANEK

REGISTRATION NUMBER: 30,427

REGISTRATION NUMBER: 30,427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
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                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                          TITLE OF INVENTION: A NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                            SOFTWARE: Patentin Rel CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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TOPOLOGY: lir
APPLICATION NUMBER: US/08/101,435 FILING DATE:
                                                                                                                                              COUNTRY:
                                                                                                                                                                                                             ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
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                                                                                                                               60606
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                                                                                                                                                                                          E: Allegretti & Witcoff, Ltd.
10 South Wacker Drive, Suite 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 amino acids
                                                                                                                                              USA
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George Mason Bldg., Washington & Prince Sts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                             Version #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 9;
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Query Match
Best Local Similarity
"---hes 6; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 13, Application PC/TU
GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
TITLE OF INVENTION: HIV EN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                 TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 312-715-1234
TELEX: 910-221-5317
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 63:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/266-2614
TELEFAX: 415/952-9881
                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                             FILING DATE: 03-APRIL-199 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
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MEDIUM TYPE: 5.25 in
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/847,563
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LENGTH: 320 amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-SOFTWAY DEC.
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                                                                                                                                LENGTH:
                                                                                                                                                                                                TELEFAX:
                                                                                                                                                                                                                                                                   REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: U.S.S. FILING DATE: 03-APRIL-1990
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                                                                                                                                                                                                                                                                                      NAME:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: 312-715-1000
TELEFAX: 312-715-1234
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: McDonnell, John REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        163 SSTLSCHFR 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 SETINCHFK 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    South San Francisco
                                                                                               : 481 amino acids
AMINO ACID
GY: linear
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                                                                                                                                                                                                                                                                                 Carolyn
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                             67.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360 Kb floppy disk
             Score 35; DB Pred. No. 52; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3; Mismatches
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                                             Length 481;
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0,

Conservative

Indels

0;

Gaps

0;

STREET:

P.O.

Box 1404

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Query Match
Best Local Similarity
""" tohes 6; Conserv:
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                                                                             Sequence 8, Application US/08472240A
Patent NO. 6284248
GENERAL INFORMATION:
APPLICANT: KIENY, Marie-Paule
                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (703) 836-202.
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 858 amino acida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: WO 92/19742
FILLYG DATE: 12-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 91 05392
FILLYG DATE: 02-MAY-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                               TITLE OF INVENTION: NOVEL HYBRID, TITLE OF INVENTION: 9p160 VARIANT NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: NOVEL HYBRID, TITLE OF INVENTION: 9p160 VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: SI
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/07/956,483 FILING DATE: 31-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: United States ZIP: 22313-1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Crane-Feury, Sharon E
REGISTRATION NUMBER: 36,113
REFERENCE/DOCKET NUMBER: 017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                             858 amino acids
                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KIENY, Marie-Paule
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (703) 836-6620
BURNS, DOANE, SWECKER & MATHIS
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85.78;
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Pred. No.
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                                                              SOLUBLE AND UNCLEAVED
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RESULT 11
US-08-463-911-3
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Best Local Similarity &
"""rches 6; Conservat
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; LOCATION:
US-08-472-240A-8
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INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 07/956,483
FILING DATE: 31-DEC-1992
ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
                                                              CURRENT APPLICATION DATA: APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
FILING DATE:
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Teskin, Robin L. REGISTRATION NUMBER: 3
                                                                                                                                                                          COUNTRY: U
ZIP: 02173
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STRANDEDNESS: not
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: United States ZIP: 22313-1404
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5, 5869330
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                                                                                           PatentIn Release #1.0, Version #1.30
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SYSTEM: PC-DOS/MS-DOS
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Harvey F.
A NOVEL SERUM PROTEIN PRODUCED
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Pred. No.
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; MOLECULE TYPE: US-08-955-937A-4
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US-08-955-937A-4
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                     Query Match
Best Local
     Best Local
Matches
                                                                                                                                                              TELEX: 846169
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                       FILING DATE: 19-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: PRESTIA, PAUL F
REGISTRATION NUMBER: 23,031
REFERENCE/DOCKET NUMBER: GH-7
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-0700
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TELEFAX: (617) 861-954
INFORMATION FOR SEQ ID NO:
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/0
FILING DATE: 19-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                SUFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
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LENGTH: 185 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: SWEET, RAYMOND
APPLICANT: TRUNEH, ALEMSEGED
TITLE OF INVENTION: PIGR-1, &
TITLE OF INVENTION: GENE SUPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)
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                                                                                               TYPE: amino acid
STRANDEDNESS: sin
TOPOLOGY: linear
                                                                                                                                                                                                             TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/0:
FILING DATE: 17-OCT-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: VALLEY FORGE
                                                                                                                                             LENGTH:
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STRANDEDNESS: sir
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REFERENCE/DOCKET NUMBER:
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   Similarity
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                                                                                                                                               195 amino acids
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     Conservative
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                65.4%;
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AER: WHI95-05
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Score 34; DB Pred. No. 31; 2; Mismatches
                                                                                                                                                                                                                                                             GH-70228
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Pred. No.
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                                 DB 3; Length 195;
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Gaps
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LENGTH: 195
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/300,985A CURRENT FILING DATE: 1999-04-28 EARLIER APPLICATION NUMBER: US 08/955,937 EARLIER FILING DATE: 1997-10-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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NUMBER OF SEQ ID NOS: 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: PIGR-1, A M
TITLE OF INVENTION: SUPERFAMILY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                            COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/955,937A
FILING DATE: 17-OCT-1997
CLASSIFICATION: 435
                                                                                                                                        ZIP: 19482
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                       APPLICANT: WU, SHUJIAN
APPLICANT: SWEET, RAYMOND
APPLICANT: TRUNEH, ALEMSEGED
TITLE OF INVENTION: PIGR-1, I
TITLE OF INVENTION: GENE SUPH
                                                                                                                                                                                                                         STREET: P.O. BOX 91
CITY: VALLEY FORGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 5; Conserv
                                                                                                                                                                                                               STATE:
APPLICATION NUMBER:
                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                            ADDRESSEE:
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5. 6232441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31 SLTVQCHYK 39
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                                                                                                                                                                                                                                         RATNER & PRESTIA
O. BOX 980
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65,4%; 55.6%;

Score 34; Pred. No. Mismatches

4;

Length 195; Indels

0

Gaps

0

A MEMBER OF IMMUNOGLOBULIN GENE

PIGR-1, A MEMBER OF IMMUNOGLOBULIN GENE SUPERFAMILY

60/056,152

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GENERAL INFORMATION.

GENERAL INFORMATION.

APPLICANT: WU, SHUJIAN

APPLICANT: TRUNEH, ALEMSEGED

APPLICANT: TRUNEH, ALEMSEGED

APPLICANT: TRUNEH, ALEMSEGED

APPLICANT: HURLE, MARK ROBERT

TITLE OF INVENTION: SUPERFAMILY

FILE REFERENCE: GH-70228-1

CURRENT APPLICATION NUMBER: US/09/300,985A

CURRENT FILING DATE: 1999-04-28

EARLIER APPLICATION NUMBER: US 60/955,937

EARLIER APPLICATION NUMBER: US 60/956,152

EARLIER APPLICATION NUMBER: US 60/056,152

EARLIER FILING DATE: 1997-10-22

EARLIER FILING DATE: 1997-08-19

NUMBER OF SEQ ID NOS: 14

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 2

LENGTH: 201

TYPE: PRT

ORGANISM: HOMO SAPIENS

US-09-300-985-2
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SEQUENCE CHARACTERISTICS:
LENGTH: 201 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-955-937A-2
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Search completed: July 11, 2003, 12:02:04 Job time: 2.60915 secs
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Best Local Similarity
Matches 5; Conserv
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PATERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 65.4%;
Best Local Similarity 55.6%;
Matches 5; Conservative
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REGISTRATION NUMBER: 23,031
REFERENCE/DOCKET NUMBER: GH-70228
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-0700
TELLEFAX: 610-407-0701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 19-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: PRESTIA, PAUL F
                                                                     1 SETINCHEK 9
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31 SLTVQCHYK 39
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Pred. No. 32;
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Perfect score:
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Maximum DB
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1: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*

9: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*

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US-10-176-913-608
US-10-176-913-608
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US-10-139-790-608
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US-09-140-719-1
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Sequence 1, Appli
Sequence 34, Appl
Sequence 34, Appl
Sequence 34, Appl
Sequence 616, App
Sequence 608, App
Sequence 608, App
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US-10-091-442-1
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/10091442 Patent No. US20020164711A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Burns, Doane, Swecker & Mathis STREET: P.O. Box 1404
CITY: Alexandria
STATE: Virginia
COUNTRY: United States
ZIP: 22313-1404
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
          APPLICATION NUMBER: US/10/091,442
FILING DATE: 07-Mar-2002
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/91,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                                                                                           MIURA, Kenju
ISHIDA, NO. US20020164711a1uhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, KOZO
YAMAGUCHI, NO. US20020164711a1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                     TSUROUOKA, NO. US20020164711Aluo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                        WASA, Fuyuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER:
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US-10-174-588-608
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US-10-176-488-608
US-10-176-492-608
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    JP 6-067339
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1 Patent No.
                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                 FILING DATE: 14-JUL-1 PRIOR APPLICATION DATA:
                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                      APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
           APPLICATION NUMBER: JP 6. FILING DATE: 04-MAR-1993
                                                                                              APPLICATION NUMBER: US 0 FILING DATE: 14-JUL-1993
                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                         STREET: P.O. Box CITY: Alexandria
                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 001560-247
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE DESCRIPTION: SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                               Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Application US/09140719
S20010026931A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                United States
                                                                                                                                                                                                                                                                                                                                                                                                                                        KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. US20010026931A1omi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIURA, Kenju
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NAKAZATO, Hiroshi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           McGowan,
                                                                                                                                                                                                   08-AUG-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No. US20010026931A1uhiro
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                                                                     JP 4-212305
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                          JP 6-067339
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Pred. No.
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US-10-091-442-34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 34, Applicati
Patent No. US200201647
GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS
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STRANDEDNESS: si
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                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
APPLICATION NUMBER: US 08/474,661
                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                  TELECOMMUNICATION INFORMATION:
                                                                                         ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YAMAICHI, KOZO
YAMAGUCHI, NO. US20020164711A1om1
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                      FILING DATE: 07-JUN-1995
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
APPLICATION NUMBER: JP 6-067339
FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4, Application US/10091442 US20020164711A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                  REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: Alexandria
STATE: Virginia
 TELEPHONE:
                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: United States ZIP: 22313-1404
                                                                   NAME: McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SETINCHEK 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Burns, Doane,
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linear
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TSUROUOKA, No. US20020164711Aluo
NAKAZATO, Hiroshi
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(703)
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Pred. No.
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
                                    TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 34:
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tent No. US20010026931A1
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                   NAME: MCGOWAN, MAICOLM K.
REGISTRATION NUMBER: 39,300
REGERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                              APPLICATION NUMBER: JP 6 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION UNMBER: US/09/140,719 FILING DATE: 08-AUG-1998
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hes 9; Conserv
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Alexandria
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Conservative C
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                                                                        (703) 836-6620
                                                                                                                                                                                                  JP 6-067339
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                                                                                           ; LOCATION: (20) ; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-764-853-616
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Best Local Similarity
"hes 7; Conserv?
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US-09-764-881-113
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US-09-764-853-616
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                               Query Match
Best Local S
Matches 7
                                                                                                                                                                   SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 616
LENGTH: 90
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 113
LENGTH: 90
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/764,853
CURRENT FILING DATE: 2001-01-17
                                                                                                                                                                                                                                                                                                                 APPLICANT: Rosen et al. TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REFERENCE: PJZ06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/764,881
CURRENT FILING DATE: 2001-01-17
Prior application data removed - refer to PALM or file wrapper
NUMBER OF SEQ ID NOS: 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic acids, Proteins, and Antibodies
FILE REFERENCE: PTZ07
                                                                                                                                                                                                                                                   Prior application data removed - consult PALM NUMBER OF SEQ ID NOS: 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
NAME/KEY: SITE
LOCATION: (20)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
                                                                                                                                      FEATURE:
NAME/KEY: SITE
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                               Local Similarity 77.8 hes 7; Conservative
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Local Similarity 100.0%;
es 9; Conservative 0
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Pred. No. 0.09;
                                Mismatches
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RESULT 7 US-10-174-590-608 밁

SETINCVLK 77

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Prior application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 612
SEQ ID NO 608
LENGTH: 201
TYPE: PRT
ORGANISM: Homo Sapien
US-10-174-590-608
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Best Local Similarity
Thes 5; Conserv
                                                  ; ORGANISM: Homo Sapien US-10-176-758-608
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                                                                                             Prior Application removed - See File Wrapper or Palm
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 608
LENGTH: 201
 Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                           APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C104
CURRENT APPLICATION NUMBER: US/10/176,758
CURRENT FILING DATE: 2002-06-21
                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Baker, Kevin P. APPLICANT: Chen, Jian APPLICANT: Desnoyers, Luc
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CURRENT APPLICATION NUMBER: US/10/174,590
CURRENT FILING DATE: 2002-06-18
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                                                                                 TYPE: PRT
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Lication No.
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Godowski, Paul ;
                                                                                                                                                                                                                                                           Wood, William I.
                                                                                                                                                                                                                                                                         Smith, Victoria Watanabe, Colin K.
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Godowski, Paul J.
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US-10-173-706-608
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ORGANISM: Homo Sapien
JS-10-173-706-608
                           Prior Application removed
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 608
LENGTH: 201
TYPE: PRT
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NUMBER OF SEQ ID NOS: 612
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LENGTH: 201
TYPE: PRT
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CURRENT FILING DATE: 2002-06-17
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Godowski, Paul J.
Gurney, Austin L.
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o. US20030022293A1
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b. US20030013153A1
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LENGTH: 201
TYPE: PRT
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SEQ ID NO 608
LENGTH: 201
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Publication No. US20030022295A1
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                                                                               APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C60
CURRENT APPLICATION NUMBER: US/10/175,752
CURRENT FILING DATE: 2002-06-19
CURRENT FILING DATE: 2002-06-19
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CURRENT APPLICATION NUMBER: US/10/175,738
CURRENT FILING DATE: 2002-06-19
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                                                Prior Application removed - See File Wrapper or Palm NUMBER OF SEQ ID NOS: 612
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NUMBER OF SEQ ID NOS: 612
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5. US20030022294A1
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US-10-176-482-608
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CURRENT FILING DATE: 2002-06-20
Prior Application removed - See File Wrapp
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 608
LENGTH: 201
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 608, Application US/10176757 Publication No. US20030022297A1
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TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C70
                                                                   APPLICANT: Zhang;Zemin
TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C86
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                        CURRENT APPLICATION NUMBER: US/10/176,757
CURRENT FILING DATE: 2002-06-20
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Godowski, Paul J.
Gurney, Austin L.
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b. US20030022296A1
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Pred. No.
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Pred. No.
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Gaps

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; NUMBER OF SEQ ID NOS: 612
; SEQ ID NO 608
; LENGTH: 201
; TYPE: PRT
; ORGANISM: Homo Sapien
US-10-176-757-608
                                                                                                                                                                                                            TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC TITLE OF INVENTION: ACIDS ENCODING THE SAME
FILE REFERENCE: P3430R1C66
CURRENT APPLICATION NUMBER: US/10/176,913
CURRENT FILING DATE: 2002-06-20
Prior Application removed - See file Wrapper or Palm
NUMBER OF SEQ ID NOS: 612
SEQ ID NO 608
LENCTH: 201
TYPE: PRT
ORGANISM: Homo Sapien
Search completed: July 11, 2003, 12:37:31 Job time: 3.63825 secs
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US-10-176-913-608
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APPLICANT: Chen, Jian
APPLICANT: Desnoyers, Luc
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J
APPLICANT: Gurney, Austin L
APPLICANT: Pan, James
APPLICANT: Smith, Victoria
                                                                                                                                        Query Match 65.4%;
Best Local Similarity 55.6%;
Matches 5; Conservative
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Best Local Similarity 55.6%;
Matches 5; Conservative
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31 SLTVQCHYK 39
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31 SLTVQCHYK 39
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Goddard, Audrey
Godowski, Paul J.
Gurney, Austin L.
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                                                                                                                                         Score 34; DB 9; Length 201; Pred. No. 90; 2; Mismatches 2; Indels
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Title:
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BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                      July 11, 2003, 11:45:06; Search time 1.81497 Seconds (without alignments) 476.708 Million cell updates/sec
                                                                          US-10-091-442-1
52
                                                          1 SETINCHEK 9
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Searched: Scoring table: 283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters:

283224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR\_73:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\*

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

| 29                 | 28     | 27                 | 26                 | 25                 | 24                 | 23                 | 22                 | 21     | 20     | 19                | 18      | 17                 | 16                 | 15                 | 14                 | 13     | . 12   | 11                 | 10     | 9      | 8                  | 7                  | o                  | ທ                  | 4                 | w                  | 2      | 1                  |   | Result<br>No. |
|--------------------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------|--------|-------------------|---------|--------------------|--------------------|--------------------|--------------------|--------|--------|--------------------|--------|--------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------|--------------------|---|---------------|
| 34                 | 34     | 34                 | 34                 | 34                 | 34                 | 34                 | 34                 | 34     | 34     | 34                | 34      | 34                 | 35                 | ü                  | ω<br>G             | 35     | 35     | 35                 | 35     | 35     | 35                 | 35                 | 35                 | 36                 | 37                | 37                 | 37     | 37                 |   | Score         |
| 65.4               | 65.4   | 65.4               | 65.4               | 65.4               | 65.4               | 65.4               | 65.4               | 65.4   | 65.4   | 65.4              | 65.4    | 65.4               | 67.3               | 67.3               | 67.3               | 67.3   | .7     | 67.3               | 7.     | 67.3   | .7                 | 67.3               | .7                 | 9                  | 71.2              | 71.2               | 71.2   | 71.2               |   | Query         |
| 798                | 798    | 779                | 389                | 389                | 256                | 231                | 215                | 145    | 138    | 136               | 133     | 82                 | 2095               | 1173               | 858                | 522    | 426    | 280                | 280    | 267    | 267                | 203                | 118                | 863                | 1030              | 337                | 320    | 320                |   | Length        |
| N                  | N      | N                  | N                  | N                  | N                  | Ľ                  | N                  | N      | N      | N                 | N       | N                  | 2                  | 2                  | -                  | N      | N      | N                  | N      | N      | N                  | N                  | N                  | N                  | N                 | N                  | N      | 2                  | H | DB            |
| C98069             | C95202 | A86862             | A81787             | F81211             | T28853             | HLCHBL             | C48150             | 146633 | I46634 | I46635            | I46632  | T10149             | S29529             | T25539             | VCLJG2             | н97927 | F95058 | D84968             | I49052 | I55686 | 149053             | I49054             | B64028             | S38140             | S57380            | S68678             | A46152 | S17177             |   | ID            |
| primosomal replica | prote  | primosomal protein | probable periplasm | conserved hypothet | hypothetical prote | class II histocomp | hibernation-relate |        |        | rearranged T-cell | d T-cel | probable hexose tr | genome polyprotein | hypothetical prote | env polyprotein pr | m      |        | hypothetical prote | G.1    |        | Ly-49G.2 antigen - | Ly-49G.2 antigen - | hypothetical prote | probable finger pr | probable membrane | adenosine receptor | 3 in   | probable G protein |   | Description   |

| RESULT 2 A46152 A46152 A3 adenosine receptor - rat C;Species; Rattus norvegicus ( C;Date: 21-Sep-193 #sequence. C;Accession: A46152 R;Zhou, Q,Y;, Li, C; Olah, M. Proc, Natl. Acad. Sci. U,S.A. A;Title: Molecular cloning and A;Reterence number: A46152; MI A;Accession: A46152 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-320 <zhoy a;cross-references:="" a;experimental="" a;note:="" brain="" gb:m94152;="" inconsistent<="" sequence="" source:="" th=""><th>RESULT 1 S17177 S17177 S17177 C;Species: Rattus norvegicus (Norr C;Date: 04-Dec-1992 #sequence_rev C;Accession: S17177 R;Meyerhof, W.; Mueller-Brechlin, FEBS Lett. 284, 155-160, 1991 A;Title: Molecular cloning of a na A;Reference number: S17177; MUID: A;Accession: S17177 A;Molecule type: mRNA A;Residues: 1-320 <ameyo #st="" a;cross-references:="" adenosine="" c;keywords:="" c;superfamily:="" coupled="" domain:="" embl:x59249;="" f;17-39="" f;180-200="" f;234-257="" f;245-4286="" f;30-200="" f;30-201="" f;<="" g="" i="" protein="" ransmembrane="" receptor="" th="" transmembrane=""><th>30 34 65.4 1078 31 34 65.4 1089 32 34 65.5 1089 33 34 63.5 129 35 33 63.5 129 36 33 63.5 226 39 33 63.5 228 40 33 63.5 298 41 33 63.5 313 42 33 63.5 313 43 63.5 333 63 63.5 363.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363</th></ameyo></th></zhoy> | RESULT 1 S17177 S17177 S17177 C;Species: Rattus norvegicus (Norr C;Date: 04-Dec-1992 #sequence_rev C;Accession: S17177 R;Meyerhof, W.; Mueller-Brechlin, FEBS Lett. 284, 155-160, 1991 A;Title: Molecular cloning of a na A;Reference number: S17177; MUID: A;Accession: S17177 A;Molecule type: mRNA A;Residues: 1-320 <ameyo #st="" a;cross-references:="" adenosine="" c;keywords:="" c;superfamily:="" coupled="" domain:="" embl:x59249;="" f;17-39="" f;180-200="" f;234-257="" f;245-4286="" f;30-200="" f;30-201="" f;<="" g="" i="" protein="" ransmembrane="" receptor="" th="" transmembrane=""><th>30 34 65.4 1078 31 34 65.4 1089 32 34 65.5 1089 33 34 63.5 129 35 33 63.5 129 36 33 63.5 226 39 33 63.5 228 40 33 63.5 298 41 33 63.5 313 42 33 63.5 313 43 63.5 333 63 63.5 363.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363</th></ameyo>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 30 34 65.4 1078 31 34 65.4 1089 32 34 65.5 1089 33 34 63.5 129 35 33 63.5 129 36 33 63.5 226 39 33 63.5 228 40 33 63.5 298 41 33 63.5 313 42 33 63.5 313 43 63.5 333 63 63.5 363.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 53 63.5 363 |
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| (Norway rat) revision 18 Nov-1994 #text_change 29. E:; Johnson, R.A.; Stiles, G.L.; Cive 89, 7432-7436, 1992 characterization of an adenosine rec JID:92366475; PMID:1323836 NID:923724; PIDN:AAA40680.1; PID:94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | or - rat way rat) ision 04-Dec-1992 #text_change 2 R.; Richter, D.  ovel putative G-protein coupled 91285122; PMID:1647979  91285122; PMID:1647979  NID:956307; PIDN:CAA41937.1; PID Al atus predicted <tm1> atus predicted <tm2> tatus predicted <tm3> tatus predicted <tm3> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5> status predicted <tm5 <tm5="" predicted="" status="" status<="" td=""><td>2 A56715<br/>2 I59362<br/>2 B56746<br/>2 B56715<br/>2 AE2023<br/>2 T298909<br/>2 T299743<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T39298<br/>2 T38839</td></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm5></tm3></tm3></tm2></tm1> | 2 A56715<br>2 I59362<br>2 B56746<br>2 B56715<br>2 AE2023<br>2 T298909<br>2 T299743<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T39298<br>2 T38839                                                                             |
| 29-Sep-1999<br>ivelli, O.<br>receptor: the A3 aden                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 9-Sep-1999 receptor expressed d refeator expressed t ; thiolester bond; t ; thiolester bond; t                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | calcium receptor ( calcium/polyvalent Ca(2+)-sensing rec calcium receptor ( hypothetical prote adenosine receptor hypothetical prote hypothetical prote cytochrome-c3 hydr hypothetical prote beta-lactamase - p rare lipoprotein A protein F25E5.2 [i hypothetical prote hypothetical prote                   |

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A;Cross-references: SGD:S0005449
A;Map position: 15L
C;Superfamily: unassigned GAL4-type zinc cluster proteins; GAL4
                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Residues: 1-1030 <ZGM>
A;Cross-references: EMBL:X83121; NID:g600461; PIDN:CAA58190.1; PID:g600469
R;Zumstein, E.; Pearson, B.M.; Kalogeropoulos, A.; Schweizer, M.
submitted to the Protein Sequence Database, July 1996.
A;Reference number: S66775
A;Accession: S66783
                                                                                                                                                                                                                                                                                                                                                                                                                        R:2umstein, E.; Pearson, B.M.; Kalogeropoulos, A.; Schweizer, M. Yeast 11, 975-986, 1995
A:Title: A 29 425 kb segment on the left arm of yeast chromosome A; Reference number: S57374; MUID:96021609; PMID:8533473
A; Accession: S57380
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C;Accession: S68678
R: K: S-44-3
  C;Keywords: transmembrane protein
F;131-171/Domain: GAL4 zinc binuclear cluster homology <GAL4>
F;762-778/Domain: transmembrane #status predicted <TMM>
                                                                                                                                                                     A; Experimental source:
                                                                                                                                                                                       A;Molecule type: DNA
A;Residues: 1-1030 <20W>
A;Cross references: EMBL:Z74831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Saccharomyces cerevisiae
C;Date: 28-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 19-Apr-2002
C;Accession: S57380; S66783; S50416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 probable membrane protein YOL089c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein 00938
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C; Keywords: alternative splicing
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A; Residues: 1-337 <SAJ>
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                                                                                                                               A; Gene: SGD: HAL9
                                                                                                                                                     C;Genetics:
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C;Species: Rattus sp. (r
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RESULT I49054

Ly-49G.2 antigen C; Species: Mus mu

musculus

(house mouse)

mouse

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A; Authors: Gnehm, C.L.; McDonald, L.A.; Small, K.V.; Fraser, C.M.; SA; Title: Whole-genome random sequencing and assembly of Haemophilus A; Reference number: A64000; MUID:95350630; PMID:7542800 A; Accession: B64028
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C;Superfamily: unassigned GAL4-type zinc cluster proteins; GAL4 zinc binuclear cluste
C;Keywords: DNA binding; nucleus; transcription regulation; zinc finger
F;14-52/Domain: GAL4 zinc binuclear cluster homology <GAL4>
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R;van Vliet-Reedijk, J.C.; Planta, submitted to the Protein Sequence
Ъ
                              δõ
                                                                                                                                          C; Superfamily: Haemophilus influenzae hypothetical protein
                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-118 < TIGR>
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                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Haemophilus influenzae
C;Date: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 08-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein HI1406 - Haemophilus influenzae (strain Rd C;Species: Haemophilus influenzae
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A;Map position: 11R
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Pred. No.
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Ly-49G.2 antigen - mouse

W:Alternate names: Ly-49E

C:Species: Mus musculus (house mouse)

C:Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control 
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R;Mason, L.H.; Ortaldo, J.R.; Young, H.A.; Kumar, V.; Bennett, M.; Anderson, S.K. J. Exp. Med. 182, 293-303, 1995
A;Title: Cloning and functional characteristics of murine large granular lymphocy A;Reference number: I55686; MUID:95355829; PMID:7629495
A;Accession: I55886
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
                                                                                                                                                                                                                                                        C;Species: Mus sp. (mouse)
C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 19-May-2000
C;Accession: I55666
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A; Residues: 1-43,'Q',45-267
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A; Residues: 1-267 < RES>
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A;Title: Ly-49 multigene famil
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EMBL:U12890;
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RESULT 12 F95058

hypothetical protein SP0505 [imported] C; Species: Streptococcus pneumoniae

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pneumoniae

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A; Residues: 1-280 <STO>
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C;Species: Buchnera sp.
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001
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J. Immunol. 153, 1068-1079, 1994
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C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 19-May-2000
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A;Gene: LGL-1
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A; Cross-references: GB:S78689; NID:g1041888; PIDN:AAC60707.1;
                                                                                                                       A; Gene:
                                                                                                                                     C; Genetics:
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Nature 407, 81-86, 2000
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                                                                                                                                                    A; Experimental source: strain APS
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R:Tettelin, H.; Nelson, K.E.; Paulon, J.D.; Umayam, L.A.; White, O.; nson, T.; Hickey, E.K.; Holt, I.E. science 293, 498-506, 2001

C; Date: 03-Au C; Accession:

Paulsen, I.T.; , O.; Salzberg,

Eisen, J.A.; Read, T.D.; Pos. S.L.; Lewis, M.R.; Radune,

Peterson, S.; Here, D.; Holtzapple,

B.A.; Morrison

polyp

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C;Accession: H9792;
R;Hoskins, J.A.; Alborn Jr., W.; /
e, R.; LeBlanc, D.J.; Lee, L.N.;
e, R.; LeBlanc, Minkler, M.E.
                                                                                                                                                                                                                 RESULT 14
VCLJG2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Bacteriol. 183, 5709-5717, 2001
A; Authors: Yang, Y.; Young-Bellido, M.; Zhao, G.; Zook, C. A; Title: Genome of the Bacterium Streptococcus pneumoniae A; Reference number: A97872; MUID:21429245; PMID:11544234 A; Accession: H97927
                                                                                                                                             env polyprotein precursor - human immunodeficiency virus type N;Alternate names: coat polyprotein C;Species: human immunodeficiency virus type 2, HIV-2 C;Date: 30-Sep_1987 #sequence_revision 30-Sep-1987 #text_chang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            type 1 site-specific deoxyribonuclease (EC 3.1.21.3) - Streptococcus pneumo
C:Species: Streptococcus pneumoniae
C:Date: 22-Oct-2001 #sequence_revision 22-Oct-2001 #text_change 27-Nov-2001
                                                                                                C;Date: 30-Sep-1987 #sequence_revision C;Accession: C26262 R;Guyader, M.; Emerman, M.; Sonigo, P.; Nature 326, 662-669, 1987
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C;Keywords:
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A; Molecule type:
A; Residues: 1-858
                                                A; Contents:
                                                             A; Reference number: A26262; MUID: 87173056;
                                                                         Nature 326, 662-669, 1987
A; Title: Genome organization and
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A; Residues: 1-522 <KUR>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Atthors: Loftus, B.J.; Yang, F.; Smith, H.O.; A; Title: Complete Genome Sequence of a virulent A; Reference number: A95000; MUID: 21357209; PMID: A; Accession: F95058
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A; Residues: 1-426 < KUR>
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                             proviral DNA
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Lefkowitz, E.J.; Lu, J
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                                                               PMID: 3031510
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J.; Matsushima, P.; McAhren,
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A;Cross-references: GB:M15390; NID:g1332361; PIDN:AAB00770.1; PID:g32:C;Genetics:
A;Gene: env
C;Genetics:
C;Genetics:
A;Gene: env
C;Superfamily: type E retrovirus env polyprotein
C;Keywords: AIDS; capsid protein; coat protein; glycoprotein; immunode
F;1-17/Domain: signal sequence #status predicted <STO-
F;18-858/Product: env polyprotein #status predicted <MAT>
F;18-501/Product: exterior membrane glycoprotein #status predicted <EDMN-
F;34,67,76,119,120,151,166,179,192,193,196,206,238,241,248,272,278,289
                                                                                                                                                                                                 A;Map position: 1
A;Introns: 23/3; 51/1; 104/3; 343/1; 478/2; 868/3; 891/3; 970/3;
C;Superfamily: hypothetical protein C10H11.9; protein kinase home
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C;Date: 15-Oct-1999 #sequence_rev
C;Accession: T25539
                                                                                                                                                                                                                                                                                              A;Cross-references: EMBL:U88311; PIDN:AAB42348.1; GSPDB:GN00019; A;Experimental source: strain Bristol N2; clone C10H11
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A; Residues: 1-1173 <DAN>
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Pred. No. 1.8e+02;
Pred. No. 1.8e+02;
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AA3R_MOUSE
RLPA_RICPR
TREE_XENLA
PIGR_HUMAN
CABP_SCHMA
CABP_SCHMA
NLTB_RICCO
RL25_HELD
14P_HUMAN
PLL_SHEEP
D250_ASFB7
BHMT_PIG
SCF_CHICK
Y361_HAEIN
RLPA_RICCN
ANXB_HUMAN
VG59_HSVSA
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Q9zde1
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P57413
P04577
P37800
P56715
Q06577
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P54247
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                                              0 homo sapien
6 mus musculu
2 rattus norv
4 bos taurus
6 burkholderi
8 mus musculu
1 rickettsia
3 xenopus lae
3 xenopus lae
6 schistosoma
4 ricinus com
4 helicobacte
0 homo sapien
8 ovis aries
2 african swi
2 sus scrofa
8 gallus gall
haemophilus
                                                                                                                                                                                                                                                                                                                                                              7 human immun
10 toscana vir
5 homo sapien
7 tamias sibi
8 gallus gall
2 onchocerca
homo sapien
herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           homo sapien
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buchnera ap
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haemophilus
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                                   rickettsia
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Result

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| 59.6     | 59.6                                          | 60.6               | 61.5               | 61.5               | 61.5       | 61.5                                          | 61.5               | 61.5       | 61.5               | 61.5       | 61.5               |
| 130      | 130                                           | 295                | 3511               | 1660               | 1254       | 763                                           | 763                | 750        | 407                | 407        | 406                |
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| LEG2_RAT | LEG2_MOUSE                                    | CIN5_YEAST         | MY15_MOUSE         | VIT6_OSCBR         | POLS_EEVVM | PEPX_LACLC                                    | PEPX_LACLA         | NU5C_TECST | BHMT_RAT           | BHMT_MOUSE | BHMT_HUMAN         |
|          | 09cqw5 mus muscul                             | P40917 saccharomyc | Q9qzz4 mus musculu | Q94637 oscheius br | •          | P22346 lactococcus                            | Q9ce01 lactococcus |            | 009171 rattus norv | -          | Q93088 homo sapien |

## ALIGNMENTS

| DR DR DR R                                                                                                                                                                                        | 88888888                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3488888888                                                                                                                                                                                                                                                                                                                                                                                                                  | RRRRRR                                                                                                                                                                                                                                                                                       | R R R R R R R R R R R R R R R R R R R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 20000                                                                                                                                                                                         | g p p p p AC                                                                                                                                                            | RESU<br>SPB7 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| L; D88575; BAA31232.1; L; AF027866; AAC64506.1; P; P05619; 1HLE. ew; HGNC:13902; SERPINB7. ; 603357; [TPR000215; Serpin. m; PF00079; Serpin; 1. RT; SM00093; SERPIN; 1. SITE; PS00284; SERPIN; 1. | his SWISS-PROT entry is copyright. It is produced through a collaboration etween the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it see by .non-profit institutions as long as its content is in no was oddified and this statement is not removed. Usage by and for commercian nitities requires a license agreement (See http://www.isb-sib.ch/announce resend an email to license@isb-sib.ch). | J. Clin. Invest. 102:828-836(1998).  J. Clin. Invest. 102:828-836(1998).  -: FUNCTION: Might function as an inhibitor of Lys-specific proteases. Might influence the maturation of megakaryocytes via its action as a serpin.  -: SUBCELIULAR LOCATION: Cytoplasmic (By similarity).  -: TISSUE SPECIFICITY: Predominantly expressed in mesangial cells.  -: SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY. | SEQUENCE FROM N.A.  SEQUENCE FROM N.A.  TISSUE-Mesangial cells;  MEDLINE-98376492; PubMed-9710452;  Miyata T., Nangaku M., Suzuki D., Inagi R., Uragami K., Sakai H.,  Okubo K., Kurokawa K.;  Okubo K., Kurokawa K.;  "A mesangium-predominant gene, megsin, is a new serpin upregulated in | SEQUENCE FROM N.A.  SEQUENCE FROM N.A.  SEQUENCE FROM N.A.  SEQUENCE FROM N.A.  TSUTUOKA N., Ishida N., Kurihara T., Iwasa F.,  Tsujimoto M., Tsuruoka N., Ishida N., Kurihara T., Iwasa F.,  Tsujimoto M., Tsuruoka N., Katsuragi N., Adachi M.,  Yamashiro K., Rogi T., Kodama S., Katsuragi N., Adachi M., Miura K.,  Katayama T., Nakao M., Yamaichi K., Hashino J., Haruyama M., Miura K.,  Nakanishi T., Nakazato H., Teramura M., Mizoguchi H., Yamaguchi N.;  "Purification, cDNA cloning, and characterization of a new serpin with  megakaryocyte maturation activity.";  J. Biol. Chem. 272:15373-15380(1997). | Homo saptens (Human).  Homo saptens (Human).  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.  NCBI_TaxID=9606; | 0/2635;<br>15-JUN-2002 (Rel. 41, Created)<br>15-JUN-2002 (Rel. 41, Last sequence update)<br>15-JUN-2002 (Rel. 41, Last annotation update)<br>Megsin (TP55) (Serpin B7). | 1 5          |

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RESULT 2

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ID AASR, RAT
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Matches 9
                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA3R_RAT STANDARD; PRT; 320 AA
P28647; 063792;
01-DEC-1992 (Rel. 24, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation updat
EMBL; X59249; CAA41937.1;
EMBL; M94152; AAA40680.1;
EMBL; X93219; CAA63702.1;
PIR; S17177; S17177.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=96196578; PubMed=8612733;
Sajjadi F.G., Boyle D.L., Domingo R.C., Firestein G.S.;
"cDNA cloning and characterization of A31, an alternatively
rat A3 adenosine receptor variant.";
FEBS Lett. 382:125-129(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
MCBI_TaxID=10116;
                                                                                                                                                                entities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Meyerhof W., Mueller-Brechlin R., Richt "Molecular cloning of a novel putative expressed during rat spermiogenesis."; FBS Lett. 284:155-160(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=Wistar; TISSUE=Testis; MEDLINE=91285122; PubMed=1647979;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A3 adenosine receptor.'
Proc. Natl. Acad. Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhou Q.Y., Li C.Y., Olah M.E., Johnson R.A., "Molecular cloning and characterization of ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., AND CHARACTERIZATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adenosine A3 receptor (TGPCR1).
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ACT_SITE 347 348 REACTIVE BOND (BY SIMILARITY).

SEQUENCE 380 AA; 42904 MW; 9A2CDB6C63CFF605 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-92366475;
                                                                                                                                                                                                                                                                                                                                                                                                                                               SPLICING.
                                                                                                                                                                                                                                                                                                                                                       TISSUE SPECIFICITY: TESTIS, PARTICULARLY IN SPERMATOCYTES AND SPERMATIDS BUT NOT IN SPERMATOGONIA. LOW LEVELS IN THE BRAIN. DEVELOPMENTAL STACE: EXPRESSED DURING SPERMIOGENESIS. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: RECEPTOR FOR ADENOSINE. THE ACTIVITY OF IS MEDIATED BY G PROTEINS WHICH INHIBITS ADENYLYL POSSIBLE ROLE IN REPRODUCTION.
SUBCELLULAR LOCATION: Integral membrane protein.
ALTERNATIVE PRODUCTS: TWO ISOFORMS ARE PRODUCED BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188
                                                                                                                             s requires a license agreement (See http://www.isb-sib.an email to license@isb-sib.ch).
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RESULT 3

YK44_YEAST
ID4 YEAST
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DE interg
GN YKR064
OS Saccha
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Ol-JUN-1994 (Rel. 29, Created)
Ol-JUN-1994 (Rel. 29, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Putative 101.8 kDa transcriptional regulatory
                                                 van Vliet-Reedijk J.C., planta R.J.;
Submitted (MAR-1994) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: Nuclear (Probable).
-!- SIMILARITY: CONTAINS 1 ZN(2)-CYS(6), FUNGAL-TYPE BIN
                                                                                                                          Saccharomyces cerevisiae (Baker's yeast
Eukaryota; Fung1; Ascomycota; Saccharom
Saccharomycetales; Saccharomycetaceae;
NCBI_TaxID=4932;
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                                                                                             STRAIN-S288c;
                                                                                                      SEQUENCE FROM N.A.
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HSSP;
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PROSITE: PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor: Transmembrane; G
Lipoprotein; Palmitate; Alternative splicing
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                                          CLUSTER DOMAIN.
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                                                                                                                                                                                                                                                                                                                                   Similarity 5; Conserv
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cota; Saccharomycotina; Saccharomycetes;
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PALMITATE (POTENTIAL).

R -> RLSELVVNLPESSPHSNR (IN ISOFORM A3I
I -> V (IN REF. 1).
I -> V (IN REF. 3).

VSLEVOMHFY -> SAMRSRCTSM (IN REF. 2).
F -> L (IN REF. 3).
S -> F (IN REF. 1).
I -> N (IN REF. 1).
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CYTOPLASMIC (POTENTIAL)
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5 (POTENTIAL)
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European

Bioinformatics

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Matches 5
        Query Match
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                                                                                   EMBL; U32820; F
TIGR; HI1406; Hypothetical pr
SEQUENCE 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kerlavage A.R., Bult C.J., Tomb J.-F., Dougherty B.A., Merrick J.M., McKenney K., Sutton G., Fitzhugh W., Fields C.A., Gocayne J.D., Scott J.D., Shirley R., Liu L.-I., Glodek A., Kelley J.M., Weldman J.F., Phillips C.A., Spriggs T., Hedblom E., Cotton M.D., Utterback T.R., Hanna M.C., Nguyen D.T., Saudek D.M., Brandon R.C., Fine L.D., Fritchman J.L., Fuhrmann J.L., Geoghagen N.S.M., Gnehm C.L., McDonald L.A., Small K.V., Fraser C.M., Smith H.O., Wenter J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001138; Fungi_TrN.

Pfam; PF00172; Zn_clus; 1.

SMART; SM00066; GAL4; 1.

PROSITE; PS00463; ZN2_CY6_FUNGAL_1; 1.

PROSITE: PS50048; ZN2_CY6_FUNGAL_2; 1.

Hypothetical protein; Transcription regulation; DNA-binding; Nuclear protein; Zinc; Metal-binding.

Nuclear protein; Zinc; Metal-binding.

DNA_BIND 18 27 ZN(2)-CYS(6), FUNGAL-TYPE.

DNA_BIND 18 7 ZN(2)-CYS(6), FUNGAL-TYPE.
                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-Rd / KW20 / ATCC 51907;
MEDLINE-9535030; Pubmed-7542800;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P44181;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                       Science 269:496-512(1995).
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5; Conserv
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13325 MW; C1CAF33E6CBB3452 CRC64;
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Pred. No.
        Score 35;
Pred. No.
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EMBL; U10094;
EMBL; U10095;
EMBL; U12890;
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01-NOV-1997 (Rel. 35, Created)

01-NOV-1997 (Rel. 35, Last sequence update)

16-OCT-2001 (Rel. 40, Last annotation update)

Killer cell lectin-like receptor 7 (T-cell surface

LY-49G) (LY49-G antigen).

KLRA7 OR LY49G OR LY49G OR LY49-G OR LY49G4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i- FÜNCTION: RECEPTOR ON NATURAL KILLER (NK) CELLS FOR CLASS-
-i- SUBGUNT: HOMODIMER; DISULFIDE-LINKED.
-i- SUBCELLULAR LOCATION: Type II membrane protein.
-i- ALTERNATIVE PRODUCTS: 3 ISOFORMS; LY-49G.1 (SHOWN HERE),
49G.2 AND LY-49G.3; ARE PRODUCED BY ALTERNATIVE SPLICING
-i- SIMILARITY: CONTAINS 1 C-TYPE LECTIN FAMILY DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Brennan J., Mager D., Jefferles W., Takel F.;
"Expression of different members of the Ly-49
distinct natural killer cell subsets and cell
J. Exp. Med. 180:2287-2295(1994).
                                                                                                                                                                                                                                                                           PROSITE; PS00615; C_TYPE_LECTIN_1; FALSE_NEG.
PROSITE; PS50041; C_TYPE_LECTIN_2; 1.
T-cell; Glycoprotein; Antigen; Transmembrane; Cell
                                                                                                                                                                                                                                                                                                                                               MGD; MGI:101901; Klra7.

MGD; MGI:101901; Klra7.

InterPro; IPR001304; Lectin_C.

Pfam; PF00059; lectin_C; 1.

SMART; SM00054; CLECT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a license agreement (See http://www.lsb-or send an email to license@isb-sib.ch).
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Smith H.R.C., Karlhofer F.M., Yokoyama
"Ly-49 multigene family expressed by II
J. Immunol. 153:1068-1079(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                      Signal-anchor; Lectin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-95053763; PubMed-7964501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-C57BL/6; TISSUE-Spleen
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European Bioinformatics Institute. There are no restrictions on
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AAA58705.1; -.
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AAA50222.1; -.
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                                                                                                                                                                                                                                                      Receptor; Multigene family;
EXTRACELLULAR (POTENTIAL).
C-TYPE LECTIN (LONG FORM).
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BY SIMILARITY.
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STAIN=TOKYO 1998;

STAIN=20445173; PubMed=10993077;

Shigenobu S., Watanabe H., Hattori M., Sakaki Y., Ishikawa H.;

"Genome sequence of the endocellular bacterial symbiont of aphi
Buchnera sp. APS.";

Nature 407:81-86(2000).

-I- FUNCTION: SPECIFICALLY METHYLATES THE GUANOSINE IN POSITIOI
OF 16S RRNA IN THE 30S PARTICLE (BY SIMILARITY).

-I- CATALYTIC ACTIVITY: S-adenosyl-L-methionine + rRNA = S-ade
homocysteine + rRNA containing N(2)-methylquanine.

-I- SIMILARITY: BELONGS TO THE METHYLTRANSFERASE SUPERFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-UN-2002 (Rel. 41, Last annotation update)
Ribosomal RNA small subunit methyltransferase C (EC: (guanine-N(2)-)-methyltransferase) (16S rRNA m2G1207 methyltransferase).
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RSMC_BUCAI
P57413;
16-OCT-2001
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VARSPLIC
VARSPLIC
CONFLICT
                                                                                                                                                                                                                                       EMBL; AP001119; BAB13036.1; ALT_FRAME.
InterPro; IPR002052; N6_Mtase.
InterPro; IPR0020051; SAM_bind.
PROSITE; PS00092; N6_MTASE; UNKNOWN_1.
rRNA processing; Transferase; Methyltransferase;
SEQUENCE 338 AA; 39105 MW; E43516DDD22FA014 C
                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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13-AUG-1987 (Rel. 05, Last sequence update)
13-AUG-1987 (Rel. 40, Last annotation update)
16-OCT-2001 (Rel. 40, Last annotation update)
Envelope polyprotein GP160 precursor [Contains:
glycoprotein (GP120); Transmembrane glycoprotein
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InterPro; IPR000777; GP120.
Pfam; PP005516; GP120; 1.
Pfam; PP00517; GP41; 1.
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EMBL; X05291; CAA28914.1; -.
PIR; C26262; VCLG2.
HIV; M15390; ENV$2ROD.
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Viruses; Retroid viruse
NCBI_TaxID=11720;
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30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Oxygen-regulated protein 1 (Retinitis pigmentosa (Retinitis pigmentosa 1 protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RRPL_TOSV
P37800;
01-OCT-1994
01-OCT-1994
15-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; S29529; S29529.
Transferase; Nucleotidyltransferase; RNA-directed RNA polymerase.
SFOUENCE 2095 AA; 238885 MW; 22FF4DAD745583B7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             viruses.";
Virus Res. 27:119-131(1993).
-I- CATALYTIC ACTIVITY: N nucleoside triphosphate - N diphosphate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Accardí L., Gro M.C., di "Toscana virus genomic L and amino acid sequence i
                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-ISS. PHL. 3;
MEDLINE-93212587; PubMed-8460526;
  SEQUENCE FROM N.A.,
AND TYR-2033.
                                                                                                                                                                                                                                                                                                              RP1_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X68414; CAA48478.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RNA-directed
                                                             NCBI_TaxID=9606;
                                                                                                                              Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Viruses; ssRNA negative-strand viruses; Bunyaviridae; Phlebovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Poscana virus (Tos)
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5; Conserv
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6; Conserv
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(Rel. 30, Last sequence update)
(Rel. 41, Last annotation update)
d RNA polymerase (EC 2.7.7.48) (L protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                  Chordata;
Primates;
                      AND
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85.7%;
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                      VARIANTS
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segment: molecular cloning,
in comparison with other nega
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 35;
Pred. No.
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Pred.
                                                                                  Craniata; Vertebrata; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                      HIS-872;
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                      TYR-985;
                                                                                       Hominidae;
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                      THR-1670; PRO-1691
                                                                                                           Euteleostomi;
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strand RNA
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DOMAIN

Retinitis

Repeat

DOMAIN Vision; PROSITE;

DOMAIN

36 154 268 671 1687 872

s pigmentosa; 118 D 233 D 273 P 675 P 1691 P

POLY-SER.
POLY-LYS.
POLY-SER. DOUBLECORTIN Polymorphism; DOUBLECORTIN 1.

/FTId=VAR\_007810

DOMAIN

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InterPro; IPRO pfam; PF03607; SMART; SM00537
                                                                                                                                                                                                                                                                                     EMBL;
EMBL;
EMBL;
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                                                                                                                                                                                                                EMBL;
EMBL;
EMBL;
EMBL;
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Hum. Mol. Genet. 8:1541-1546(1999)
-:- FUNCTION: COULD HAVE A ROLE IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=99330563; PubMed=10401003; Guillonneau X., Piriev N.I., Danciger M., Kozak Jacobson S.G., Farber D.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-99318096; PubMed-10391212; Sullivan L.S., Heckenlively J.R., Bowne S.J., Zuo J., Hide W.A., Gal A., Denton M., Inglehearn C.F., Blanton S.H., Daiger S.P.; "Mutations in a novel retina-specific gene cause autosomal domine retinitis pigmentosa."; Nat. Genet. 22:255-259(1999).
                                                                                                                                                                                                  Genew;
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                                                                                                                                                                     MIM; 180100;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "A nonsense mutation in a novel gene pigmentosa in a family linked to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pierce E.A., Quinn T., Meehan T., McGee T.L., Berson "Mutations in a gene encoding a new oxygen-regulated protein cause dominant retinitis pigmentosa.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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                                                                                                                                                                                                           L; AF143226; AAD44197.1; JL; AF143224; AAD44197.1; JL; AF143225; AAD44197.1; JL; AF143225; AAD44198.1; JL; AF143222; AAD44098.1; JL; AF152242; AAD46774.1; JL; AF152241; AAD46774.1; JL; AF152241; AAD46774.1; JL; AF152241; AAD46774.1; JL; AF152241; AAD46774.1; JL; AF146592; AAD46774.1; JL; AF146592; AAD46794.1; JRYCYCYCTORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEIN.
SIMILARITY: CONTAINS 2 DOUBLECORTIN DOMAINS DATABASE: NAME-RetNet;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISEASE: DEFECTS IN RP1 CAUSE RETINITIS PIGMENTOSA FORM DISEASE CHARACTERIZED BY CONSTRICTION OF THE VISUAL FIEL BLINDNESS, AND FUNDUS CHANGES. THE DISEASE SEEMS TO BE & WITH TRUNCATED (STOP OR FRAMESHIFT MUTATIONS) FORMS OF 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PHOTORECEPTOR CELLS.
TISSUE SPECIFICITY: EXPRESSED IN RETINA.
BRAIN, PLACENTA, LUNG, LIVER, SKELETAL M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOTE-Retinal information network;

WWW-"http://www.sph.uth.tmc.edu/retnet/".

DATABASE: NAME-Mutations of the RP1 gene;

NOTE-Retina International's Scientific Newsletter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WWW-"http://www.retina-international.com/sci-news/rplmut.htm".
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                                                                                                            PF03607; DCX; 2.
SM00537; DCX; 2.
E; PS50309; DC; 2
                                                                                                                                                                                                HGNC:10263;
                                                                                                                                                        IPR003533;
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photoreceptor
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Best Local
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                                                                           the European Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-93180798; PubMed-8441393; Takamatsu N., Ohba K., Kondo J., Kondo N., Shiba T.; Takamatsu N., Ohba K., Kondo J., Kondo N., Shiba T.; "Hibernation-associated gene regulation of plasma proteins with a collagen-like domain in mammalian hibernators."; Mol. Cell. Biol. 13:1516-1521(1993).
                         InterPro; IPR001073; C1q.
InterPro; IPR000087; Collagen.
                                                                                                                                                                                                                                                                                                    J. Biol. Chem. 267:473-478(1992).
-i- FUNCTION: PLASMA PROTEINS HP-20, HP-
140 kDa COMPLEX VIA DISULFIDE BONDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAMSI
                                                     EMBL; D12976; BAA02353.1; -.
                                                                                                                                                                                                                                                                                                                                             hibernation.";
                                                                                                                                                                                                                                                                                                                                                          "Identification of novel blood proteins specific
                                                                                                                                                                                                                                                                                                                                                                          Kondo N., Kondo J
                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=92112696; PubMed=1730610;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tamias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu
Mammalia; Eutheria; Rodentia; Sciurognathi; Sciuridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANT
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                                                                                                                                                                                          SIMILARITY: CONTAINS SIMILARITY: CONTAINS
                                                                                                                                                                                                                                  TISSUE SPECIFICITY: PLASMA; SYNTHESIZED IN THE LIVER.
DEVELOPMENTAL STAGE: THE PROTEIN COMPLEX DISAPPEARS FROM THE
PLASMA AT ONSET OF HIBERNATION AND REAPPEARS AS HIBERNATION
                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: Extracellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2089
                                                                                                                                                                                                                         CEASES
                                                                                                                                                                                                                                                                                        HIBERNATION SPECIFIC.
                                                                                                                                               SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
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5; Conser
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71.48;
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                                                                                                                                                                                          1 COLLAGENOUS DOMAIN.
1 C1Q DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 35; DB Pred. No. 76; 1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₹;
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S -> P.
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W; 55AEDBEC43D6A507
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                                                                                                                                                                                                                                                                                                     HP-25,
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ae; Sciurinae;
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Pfam; PF00969; MHC_II_beta; 1.
Pfam; PF009328; MHC_II_beta;
ProDom; PD000328; MHC_II_beta;
ProBom; SM00407; IGc1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-88296406; PubMed-2841107;
Bourlet Y., Behar G., Guillemot F., Frechin N., Billault A., Chausse A.M., Zoorob R., Auffray C.;
"Isolation of chicken major histocompatibility complex class II beta chain sequences: comparison with mammalian beta chains and expression in lymphoid organs.";
EMBO J. 7:1031-1039(1988).
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Gallus gallus (Chicken).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
DISULFID
                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                       Interpro; IPR003006; Ig_MHC.
Interpro; IPR003597; Ig_cl.
Interpro; IPR000353; MHC_II_beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP; P01888;
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BY SIMILARITY.
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EXTRACELLULAR BETA-2.
CONNECTING PEPTIDE.
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R -> Q (IN REF. 2).
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01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
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MEDLINE=94299155; PubMed=8026747;
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PS00236; NEUROTR_ION_CHANNEL;
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                                         VARIANT ADH ALA-127.

WEDLING=95179179; PUDMed=7874174;

POLIAK M.R., Brown E.M., Estep H.L.,

Hebert S.C., Seidman C.E., Seidman J.

"Autosomal dominant hypocalcaemia cau
                                                                                                                                                                                              MEDLINE=94094324; PubMed=7916660;
Pollak M.R., Brown E.M., Chou Y.-H.W., Hebert S. Steinmann B., Levi T., Seidman C.E., Seidman J.G.
"Mutations in the human Ca(2+)-sensing receptor hypocalciuric hypercalcemia and neonatal severe hyperparathyroidism.";
Cell 75:1297-1303(1993).
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"Changes in calcium responsiveness and handling during k
differentiation. Potential role of the calcium receptor.
J. Clin. Invest. 97:1085-1093(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Expression of a calcium-sensing thyroid carcinoma cell line and i secretion.";
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Aida K., Koishi S., Tawata M., Onaya T.;
"Molecular cloning of a putative Ca(2+)-sensing receptor human kidney.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Parathyroid;
MEDLINE-95279439; PubMed-7759551;
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-Lorenz A., Holloschi A.,
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"Mutations in the Ca(2+)-sensing receptor gene cause dominant and sporadic hypoparathyroidism.";
Hum. Mol. Genet. 5:601-606(1996).
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Endocrine 15:277-282(2001).
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Aida K., Koishi S., Inoue M., Nakazato M., Tawata M.,
"Familial hypocalciuric hypercalcemia associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VARIANTS FHH MET-62; CYS-66; MET-138; GLU-143 AND GLN-227.
MEDLINE-9524322; PubMed-7726161;
Chou Y.-H.M., Pollak M.R., Brandi M.L., Toss G., Arnqvist
Atkinson A.B., Papapoulos S.E., Marx S., Brown E.M., Seidm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=21603857; PubMed=11762699;
Nakayama T., Minato M., Nakagawa M., Soma M., Tobe H., Aoi |
Nakayama T., Minato M., Ozawa Y., Kanmatsuse K., Kokubun S.;
KOSuge K., Sato M., Ozawa Y., Kanmatsuse K., Kokubun S.;
"A novel.mutation in Ca2+-sensing receptor gene in familial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         associated with Hum. Mutat. 10:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ratajczak T
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Calcium-sensing receptor mutations in familial benign hypercalcemia and neonatal hyperparathyroidism."; J. Clin. Invest. 96:2683-2692(1995).
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J. Clin. Endocrinol. Metab. 80:2594-2598(1995).
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VARIANTS FHH
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 HYPOCALCEMIA CA(2+) LEVELS DISEASE: DEFE
                                                      DISEASE:
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                                   DEFECTS IN CASR ARE ALSO THE CAUSE EMIA (ADH) IN WHICH THE RECEPTOR IS
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EMBL; U20759; AAA86504.1; -.
EMBL; U20760; AAA86504.1; -.
EMBL; D50855; BAA09453.1; -.
EMBL; S83176; AAB46873.1; -.
EMBL; S79217; AAB35262.2; -.
EMBL; S79217; AAB35262.2; -.
EMBL; S68032; AAB29414.1; -.
EMBL; S68033; AAB29414.1; -.
EMBL; S68036; AAA29415.1; -.
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InterPro; IPR000337; GPCR_Mgr.
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SIMILARITY: BELONGS TO FAMILY 3 OF G-PROTEIN COUPLED RECEPTORS.
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G_PROTEIN_RECEP_F3_2; 1.
G_PROTEIN_RECEP_F3_3; 1.
G_PROTEIN_RECEP_F3_4; 1.
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Pred. No.
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RESULT 14 CASR\_MOUSE

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SEQUENCE OF 646-799 FROM N.A., AND TISSUE SPECIFICITY.

MEDLINE-97231187; PubMed-9076582;

A QUARTLES L.D., Hartle J.E. II, Siddhanti S.R., Guo R., Hinson T.K.;

A QUARTLES L.D., Hartle J.E. II, Siddhanti S.R., Guo R., Hinson T.K.;

A distinct cation-sensing mechanism in MC3T3-El osteoblasts

T functionally related to the calcium receptor.";

J. Bone Miner. Res. 12:393-402(1997).

C -1- FUNCTION: SENSES CHANGES IN THE EXTRACELLULAR CONCENTRATION OF

C CALCIUM IONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY A

G-PROTEIN THAT ACTIVATES A PHOSPHATIDYLINOSITOL-CALCIUM SECOND

C MESSENGER SYSTEM.

C -1- SUBCELLULAR LOCATION: Integral membrane protein.

-1- ALTERNATIVE PRODUCTS: 2 ISOFORMS; A (SHOWN HERE) AND B; ARE

PRODUCED BY ALTERNATIVE SPLICING.
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900Y95; 008958; 088519; 090Y95; 090ZUB; Q9RID6; Q9RIY2;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Extracellular calcium-sensing receptor precursor (CaSR) (Parathyroid Cell calcium-sensing receptor).

CASR OR GPRC2A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oda Y., Tu C.-L., Chang
Elias P.M., Bikle D.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-20092890; PubMed-10625662; Oda Y., Tu C.-L., Chang W., Crumrine
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Kidney;
Moawad T.I., R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hildenbrand J., Ammon Submitted (MAY-1998) t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Endocrinology 140:5883-5893(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Expression and signal transduction of
cartilage and bone.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chang W., Tu C., Chen T.-H., Miller S., Shoback D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=Epiphyseal cartilage;
MEDLINE=20043955; PubMed=10579354;
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SIMILARITY: BELONGS TO FAMILY 3 OF G-PROTEIN COUPLED RECEPTORS.
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ne epidermal differentiation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of extracellular cations in Cask-deficient osteoblasts for a novel cation-sensing mechanism."; Chem. 275:3256-3263(2000).
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PROSITE; PS00979; G_PROTEIN_RECEP_F3_1; 1.

PROSITE; PS00980; G_PROTEIN_RECEP_F3_2; 1.

PROSITE; PS00981; G_PROTEIN_RECEP_F3_3; 1.

PROSITE; PS00981; G_PROTEIN_RECEP_F3_4; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Signal;
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InterPro; IPR001828; ANF_receptor.
InterPro; IPR001837; GPCR_Mgr.
Pfam; PF00003; 7tm_3; 1.
Pfam; PF01094; ANF_receptor; 1.
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01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation updat
Extracellular calcium-sensing receptor prec
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PROSITE; PS00980; G_PROTEIN_RECEP_F3_2; 1.
PROSITE; PS00981; G_PROTEIN_RECEP_F3_3; 1.
PROSITE; PS50259; G_PROTEIN_RECEP_F3_4; 1.
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Ruat M., Snowman A.M., Snyder S.H.;
"Calcium sensing receptor: molecular cloning in rat and localization
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CASR OR GPRC2A OR PCAR1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C. Natl. Acad. Sci. U.S.A. 92:3161-3165(1995).
FUNCTION: SENSE CHANGES IN THE EXTRACELLULAR CONCENTRATION OF CALCIUM IONS. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY A G-PROTEIN THAT ACTIVATES A PHOSPHATIDYLINOSITOL-CALCIUM SECOND MESSENGER SYSTEM.
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SIMILARITY: BELONGS TO FAMILY 3 OF G-PROTEIN COUPLED RECEPTORS
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Transmembrane; Glycoprotein; Signal.
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Sciurognathi; Muridae;
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O8vwu4 narcissus p
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| 63.5   |        |        | 65.4   |                    | 65.4               |                    |                    | 65.4               |                    | 65.4   |                    |        |                    | 67.3               |        |                    |        |                    |                    |                    |                    |                    | 67.3               |                    |                    |                    | 67.3               |                    |
| 65     | 59     | 2162   | 798    | 794                | 779                | 733                | 572                | 399                | 389                | 389    | 195                | 146    | 82                 | 1173               | 479    | 426                | 280    | 280                | 280                | 273                | 267                | 267                | 267                | 237                | 220                | 191                | 82                 | 74                 |
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| 092005 | Q8YW77 | Q9W3V6 | Q97PA5 | 9MX660             | Q9CEE5             | Q8SQ83             | Q9GYM9             | Q8XMD0             | Q9JST2             | Q9K148 | Q9x6S1             | 088982 | Q41151             | P92199             | Q94G47 | Q97S83             | Q9EPZ3 | 09ЛНV6             | Q9ERT5             | Q9JMA4             | Q64136             | Q9JHV5             | Q9EP76             | Q9ERT4             | 088574             | Q02534             | Q8R4P3             | Q8R4P1             |
|        | ~      | a      |        | Q99ym6 streptococc | Q9cee5 lactococcus | Q8sq83 trichosurus | Q9gym9 caenorhabdi | Q8xmd0 clostridium | Q9jst2 neisseria m | æ      | Q9x6sl porphyromon |        | Q41151 ricinus com | P92199 caenorhabdi |        | Q97s83 streptococc | Bum    | Q9jhv6 mus musculu | Q9ert5 mus musculu | Q9jma4 mus musculu | Q64136 mus musculu | Q9jhv5 mus musculu | Q9ep76 mus musculu | Q9ert4 mus musculu | 088574 mus musculu | Q02534 saccharomyc | Q8r4p3 mus musculu | Q8r4pl mus musculu |

## ALIGNMENTS

| RES<br>Q9:<br>ID                                          | . Db                                       |                                                                                                                                                              | SQ                                                                    | FT          | DR<br>DR                                                           | DR                          | RI                                                        | RT                                                                         | . R                                    | RP                 | Z : | 2 S        | 8                                                                      | 8                                                                  | 20                                    | DE : |                                                 | Di          | AC | ij                               | O 20               |
|-----------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------|--------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------|--------------------|-----|------------|------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------|------|-------------------------------------------------|-------------|----|----------------------------------|--------------------|
| RESULT 2<br>Q920J5<br>ID Q920J5 PRELIMINARY; PRT; 380 AA. | 1 SETINCHE 8   :    :       40 SDTISCHE 47 | Query Match 75.0%; Score 39; DB 10; Length 131;<br>Best Local Similarity 75.0%; Pred. No. 3.6;<br>Matches 6; Conservative 2; Mismatches 0; Indels 0; Gaps 0; | NON_TER 131 131<br>SEQUENCE 131 AA; 15049 MW; 820BA5D4EAAE519F CRC64; | NON_TER 1 1 | InterPro; IPR005123; 20G-FeII_Oxy. Pfam; PF03171; 20G-FeII_Oxy; 1. | EMBL; AF462203; AAL69366.1; | daffodil (Narcissus pseudonarcissus L. 'Dutch Master')."; | <pre>"Identification of genes associated with perlanth senescence in</pre> | STRAIN-CV. DUTCH MASTER; TISSUE-TEPAL; | SEQUENCE FROM N.A. |     | Narcissus. | Spermatophyta; Magnoliophyta; Liliopsida; Asparagales; Amaryllidaceae; | Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; | Narcissus pseudonarcissus (Daffodil). |      | Ol-Mak-2002 (TEMBLEEL 20, Last sequence update) | (TrEMBLrel. | `` | Q8VWU4 PRELIMINARY; PRT; 131 AA. | RESULT 1<br>OBVWU4 |

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C Q9VDU4;

C Q9VDU4;

DT 01-MAY-2000 (TrEMBLrel. 13, Created)

DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)

DT 01-MAR-2000 (TrEMBLrel. 20, Last annotation update)

DE CG6300 protein.

GN CG6300.

GN CG6300.

OS Drosophila melanogaster (Fruit fly).

CE Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta.

OC Pterygota; Meoptera; Endopterygota; Diptera; Brachycera; Musichwdroidea; Drosophilidae; Drosophila.
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Ananatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
Brandon K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
Wan K.H., Dayle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
Abril J.F., Agbayani A., Baxendale J., Bayraktarogiu L., Beasley E.M.,
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-!-SIMILARITY: BELONGS TO THE SERPIN FAMILY.
EMBL; AP105329; AAL16769.1; -.
InterPro; IPR000215; Serpin.
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RX MEDLINE-20196006; PubMed=10731132;

RX MEDLINE-20196006; PubMed=10731132;

RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,

RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,

RA Adams M.D., Celniker S.E., Li P.W., Hoskins R.A., Galle R.F.,

RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,

RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,

RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

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RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Ballew R.M., Basu A., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,

RA Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,

RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,

RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,

RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,

RA Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,

RA Gerry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,

RA de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,

RA de Pablos B., Delcher A., Bonge Z., Bernar C., Ferriera S., Fleischmann W.,

RA Posler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,

RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,

RA Hostin D., Houston K.A., Howland T.J., Hernandez J.R., Houck J.,

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RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Melson D.R., Muy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Shue B.C., Siden Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
Syirskas R., Tector C., Turner R., Venter E.; Wang A.H., Wang X.,
RA Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA Zheng X.H., Zhong F.N., Zhong W., Zhong W., Zhong W., Zhong W., Zhong W., Zhong W., Zhong W., Zhou X., Zhu X., Smith H.O.,
RA Zheng X.H., Zhong F.N., Rubin G.M., Venter J.C.;
"The genome sequence of Drosophila melanogaster.";
DR RISSP, P08659; 1LCI.
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Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Musc
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Pfam; PF00501; AMP-binding; 1.
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SEQUENCE 199 AA; 22504 MW; Db6AFE
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Hypothetical protein R03183.
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Bolstard P., Becker A., Boutry M., Cadleu E., Dreano S., Gloux S.,
Godrie T., Goffeau A., Kahn D., Kiss E., Lelaure V., Masuy D.,
Pohl T., Portetelle D., Puehler A., Purnelle B., Ramsperger U.,
Renard C., Thebault P., Vandenbol M., Weldner S., Galibert F.;
"Analysis of the chromosome sequence of the legume symbiont
Sinorhizobium meliloti strain 1021.",
Proc. Natl. Acad. Sci. U.S.A. 98:9877-9882(2001).
EMBL, AL591793; CAC47762.1; -
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PROSITE: PS00019; ACTININ_1; UNKNOWN_1.
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Q9JIP9;
Q1-QCT-2000
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"Ly-49W: a novel activating receptor of NOD mice with homology inhibitory receptor Ly-49G that recognizes H-Dk and H-Dd.";

Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AF20426G; AAF75837.1; -.

EMBL; AF307948; AAG41969.1; -.

EMBL; AF307948; AAG41969.1; -.

MGD; MGI:1321091; KIral2.

InterPro: IFR001304; Lectin_C.

Pfam; PF00059; lectin_C; 1.

SMART; SM00034; CLECT; 1.

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KLRA12.
                                                                                                     STRAIN=NOD; Silver E.T., Gong D.-E., Hazes B., Kane K.P.; Silver E.T., Gong D.-E., Hazes B., Kane K.P.; "Ly49W: a novel activating receptor of NOD mice with homology inhibitory receptor Ly49G that recognizes H-2Dk and H-2Dd."; Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2001 (TrEMBLrel. 16, 01-MAR-2001 (TrEMBLrel. 16, 01-DEC-2001 (TrEMBLrel. 19, Natural killer cell recepto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Identification of the Ly49L protein: evidence counterparts to inhibitory receptors.";
J. Leukoc. Biol. 0:0-0(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Lectin-related NK cell receptor LY49L4 (Natural killer
SEQUENCE FROM STRAIN=NOR;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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Rodentia;
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r LY49W2 (Natural killer cell receptor Ly-
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murinae; Mus
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    Lectin-related | Ly-49L2). KLRA12.
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01-OCT-2000
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smart; SM00034; CLECT; 1.
PROSITE; PS50041; C_TYPE_LECTIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIJURE-21103262; PubMed-11160290;
Silver E.T., Gong D.-E., Hazes B., Kane K.P.
"Ly-49W, an Activating Receptor of Nonobese
Homology to the Inhibitory Receptor Ly-49G,
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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01-JUN-2001 (TERMBLTEL. 17, Last sequence update)
01-DEC-2001 (TERMBLTEL. 19, Last annotation updat
Natural killer cell receptor LY49M.
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01-JUN-2001
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"Ly-49W: a novel activating receptor of NOD mice
inhibitory receptor Ly-49G that recognizes H-2Dk
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Eukaryota; Metazoa; C
Mammalia; Eutheria; R
NCBI_TaxID=10090;
                         Silver E.T., Gong D.-E., Hazes B., Kane K.P.;
"Ly-49%: a novel activating receptor of NOD mice with homology inhibitory receptor Ly-496 that recognizes H-2Dk and H-2Dd.";
Submitted (JUN-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF283250; AAG10157.1; -.
EMBL; AF283250; AAG10058.1; -.
EMBL; AF074459; AAG0908.1; -.
MGD; MGI:1930932; Klra23.
InterPro; IPR001304; Lectin_C.
Pfam; PF00059; lectin_C; 1.
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Silver E.T., Gong
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"Ly-49W: a novel activating receptor of NOD mice with homology inhibitory receptor Ly-49G that recognizes H-2Dk and H-2Dd.";
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF204266; AAF75833.1;
EMBL; AF307947; AAG41968.1;
EMBL; AF307947; AAG41968.1;
MGD; MGI:1321091; Klra12.
                                                                                                                                                                                                                                         Silver E.T., Gong D.-E., Hazes B., Kane K.P.; "Ly49W: a novel activating receptor of NOD mice with homology inhibitory receptor Ly49G that recognizes H-2Dk and H-2Dd."; Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
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01-MAR-2001 (TrEMBLrel. 16, 1
01-DEC-2001 (TrEMBLrel. 19, 1
Natural killer cell receptor
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Anderson S.K.;
"Identification of the Ly49L
counterparts to inhibitory re
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Eukaryota; Metazoa; C
Mammalia; Eutheria; F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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C_TYPE_LECTIN_2;
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                                                                                                                                                                                                                                                                                                                                                                               Chordata; (Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata;
Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptors.";
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Last sequence Last anno
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                                                                                                                                                                                                                                                                                                                                                                                                                                       LY-49W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LY49W1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein:
                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; | Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Winkler-Pickett
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence update)
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9W1 (Natural killer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268
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17;
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Best Local S
Matches
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Best Local
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01-OCT-2000 (TrEMBLrel. 1
01-OCT-2000 (TrEMBLrel. 1
01-DEC-2001 (TrEMBLrel. 1
Lectin-related NK cell re
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    counterparts to Inhibitory receptors.";
J. Leukoc. Biol. 0:0-0(2000).
EMBL; AF204267; AAF75836.1;
MGD; MGI:1321091; KLTa12.
InterPro; IPR001304; Lectin_C.
Pfam; PF00059; lectin_c; 1.
"Identification of the Ly49L protein: evidence counterparts to inhibitory receptors.";
J. Leukoc. Biol. 0:0-0(2000).
EMBL; AF204265; AAF75834.1; -.
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09JIQ0;
01-OCT-2000 (TrEMBLrel.
                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
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Pfam; PF00059; lectin_C; 1.
SMART; SM00034; CLECT; 1.
PROSITE; PS50041; C_TYPE_LECTIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
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01-DEC-2001
                                                                                                                       STRAIN-CBA/J;
                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                KLRA12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-CBA/J;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                  Anderson S.K.;
                                                                                                   Makrigiannis A.P.,
                                                                                                                                                                                 NCBI_TaxID-10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Identification of the Ly49L protein:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   268
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Rodentia;
                                                                                                       Etzler
                                                                                                                                                                                                  Chordata; 
Rodentia;
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receptor LY49L1.
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                                                                                                                                                                                                                                                                                                                                              Created)
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1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
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                                                                                                                                                                                                    Craniata; Vertebrata; Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata;
Sciurognathi; Muridae;
                                                                                                   Winkler-Pickett
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                                                                                                                                                                                                                                                                                                                                                                                     PRT;
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. 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
17;
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                                                                for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ortaldo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                     Ortaldo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                             activating
                                                                                                                                                                                                      Euteleostomi; 
Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      278;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
Q12180
  RESULT 14
Q9V9N7
ID Q9V9N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
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Best Local S
Matches
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q12180
Q12180;
Q1-NOV-1996
Q1-NOV-1996
Q1-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                           -!- SUBCELLULAR LOCATION: NUCLEAR (BY SIMILARITY).
-: SIMILARITY: CONTAINS 1 FUNGAL-TYPE BINUCLEAR CLUSTER DOMAIN.
EMBL; 27481; CAA99101.1; -.
EMBL; X83121; CAA58190.1; -.
HSSP; P21228; PALC.
SGD; S0005449; HAL9.
Interpro; IPR001138; Fung1_Trn.
Pfam; PF00172; Zn_clus; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGD; MGI:1321091; Klra12.
InterPro; IPR001304; Lectin_C.
Pfam; PF00059; lectin_c; 1.
SMART; SM00034; CLECT; 1.
PROSITE; PS50041; C_TYPE_LECTI
    09V9N7
                                                                                                                                                                                                                                                                                                                     SMART; SM00066; GAL4; 1.

PROSITE; PS00463; ZN2_CY6_FUNGAL_1;

PROSITE; PS50048; ZN2_CY6_FUNGAL_2;
                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00172; Zn_clus; SMART; SM00066; GAL4; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-96021609; PubMed-8533473;
Zumstein E., Pearson B.M., Kalogeropoulos A.,
"A 29.425 kb segment on the left arm of yeast
more than twice as many unknown as known open
Yeast 11:975-986(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomyc
Saccharomycetales; Saccharomycetaceae; Sa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1996 (TrEMBLrel. 01, 01-NOV-1996 (TrEMBLrel. 01, 01-JUN-2002 (TrEMBLrel. 21, Chromosome XV reading frame
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Receptor.
SEQUENCE '281 AA;
                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted
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                                                                                                                                                                                                                                                                                      Zinc
                                                                                                                                                                                                                                                                                                   DNA-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=4932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EQUENCE FROM N.A.
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                                                                                                     689
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                                                                                                                                                                               Similarity
5; Conserv
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                                                                                                     SRVLNCHFR
                                                                                                                                        SETINCHFK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E., Pearson
1 (JUL-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ETLNCHDK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (JUL-1996)
                                                                                                                                                                                                                                                                1030 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
  PRELIMINARY;
                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                   Metal-binding; Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C_TYPE_LECTIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ascomycota; Saccharomycotina; Saccharomycetes; Saccharomycetaceae; Saccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32175 MW;
                                                                                                     697
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                                                                                                                                                                                                71.28; 55.68;
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75.0%;
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e EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                Œ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1;
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                                                                                                                                                                                 2.
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                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                                      Score
    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                              8C8BDE84066D2105 CRC64;
                                                                                                                                                                                                                    37;
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                                                                                                                                                                                                                                                                                                                     بر ب
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    1354 AA.
                                                                                                                                                                                                                                                                                                   protein; Transcription
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17;
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t chromosome XV c
n reading frames.
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Schweizer databases

**X** 

contains s.";

2;

Indels

0

Gaps

0

Length 1030;

regulation;

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RESULT 15
Q8S6H9
ID Q8S6H
AC Q8S6H
DT 01-JU
DT 01-JU
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                                                                                                                                                                                                                                                                                                     Adams D., Celliker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Mannatides P.G., Scherer S.E., Holt R.A., Evans C.A., Galle R.F.,
RA George R.A., Lewis S.E., Holt R.A., Evans C.A., Galle R.F.,
RA George R.A., Lewis S.E., Flore R.A., Galle R.F.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Han K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Hallew R.M., Hasu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA Beeson K.Y., Dennos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier R., Chardy J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA Gerblos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Gerblos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Durbin K.J., Evangelista C.C., Ferriar S., Fleischmann W.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Gelbart M.M., Classer K.,
RA Hostin D., Houston K.A., Howland T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Hernandez J.R., Houck J.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
Jalai M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Pacleb J.M.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Purl V., Reese M.G.,
RA Spier E., Siden K.A., Nixon K., Nusskern D.R., Sheeler F., Shen H.,
RA Spier E., Sarpaling A.C., Stapleton M., Strong R., Sun E.,
RA Wang Z.-Y. Massarman D.A., Weller E., Wang A.H., Mang X.,
RA Sulsha R., Tector C., Turner R., Venter E., Wang A.H., Mang X.,
RA Spier E., Zaver J. S., Zhan M., Zhang G., Zhao Q., A.,
RA Hostin M., Wassarman D.A., Weller S., Wang A.H., Mang 
                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                   Matches
   Q8S6H9;
Q8S6H9;
01-JUN-2002
01-JUN-2002
01-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Drosophila melanogaster (Fruit fly).

Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;

Ephydroidea; Drosophilidae; Drosophila.

NCBI_TaxID-7227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9V9N7;
01-MAY-2000 (TrEMBLrel.
01-MAY-2000 (TrEMBLrel.
01-JUN-2000 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=20196006;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CG6448 protein.
CG6448.
                                                                                                                                                                                                                                                 Local
                                                                                                                                                              1172
                                                                                                                                                                                              N
                                                                                                                                                                                                                               . Similarity
5; Conserv
                                                                                                                                                                                         ETINCH 7
                                                                                                                                                            ETVNCH 1177
 (TrEMBLrel.)
(TrEMBLrel.)
                                                                                                                                                                                                                                                                                                   1354 AA;
                                                                         PRELIMINARY;
                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=10731132;
                                                                                                                                                                                                                                             69.2%;
83.3%;
                                                                                                                                                                                                                                                                                                   150276 MW;
   21,
21,
21,
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13,
14,
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Last sequence update)
Last annotation update)
Last sequence update)
Last annotation update)
                                     Created)
                                                                                                                                                                                                                                               Score 36; I
                                                                        PRT;
                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                  770F5904A634EFD6 CRC64;
                                                                                                                                                                                                                                               DB 5;
1.1e+02;
                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                              Length 1354;
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DЬ
                              Š
                                                                                                                                      Query Match
Best Local S
Matches 4
                                                                                                                                               STRAIN-NIPPONBARE;

MCCOmble W.R., de la Bastide M., Spiegel L., Preston R., Kirchoff K.,

Kuit K., Nascimento L., Baker J., Santos L., Zutavern T., Miller B.,

Cunnius D.M., Katzenberger F., Muller S., Bell M., Ballja V., Shah R.,

Cunnius D.M., Katzenberger F., Muller S., Bell M., Ballja V., Shah R.,

King L., Yang C., Dike S., O'Shaughnessy A., Palmer L., Dedhia N.;

"Genomic sequence for Oryza sativa, Nipponbare strain, clone

OSJNBD0023M1, from chromosome 10, complete sequence.";

Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.

EMBL; AC092749; AAM08561.1; -
                                                                                                                                                                                                                                                                                                                                          Oryza sativa (Rice).

Oryza sativa (Rice).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Ehrhartoideae; Oryzaae; Oryza.

NCBI_TaxID-4530;
                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                Putative retroelement. OSJNBB0023M11.15.
1035 QSVNCHFQ 1042
                                  N
                                                                                  Similarity
                                  ETINCHEK
                                                                                                                                      1739 AA;
                                                                    Conservative
                                                                                69.2%;
50.0%;
                                                                                                                                    196006 MW;
                                                                Score 36; DB Pred. No. 1.3e
                                                                                                                                    47F7707D33152286 CRC64;
                                                                                  DB 10;
1.3e+02;
                                                                    0
                                                                                                Length 1739
                                                                  Indels
                                                                  0
                                                                  Gaps
                                                                  0
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Search completed: July 11, 2003, 11:58:48 Job time: 5.92931 secs

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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compuç
Compugen Ltd
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Run on: OM protein - protein search, using sw model July 11, 2003, 11:42:16; Search time 4.01663 Seconds (without alignments)
232.223 Million cell updates/sec

Sequence: Title: Perfect score: US-10-091-442-2 40 WQSAFTK 7

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Total number of hits satisfying chosen parameters: 908470

908470 seqs, 133250620 residues

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 10 Listing first 45 summaries 100%

Database : A\_Geneseq\_101002:\*

13: | SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1982.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1985.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1986.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1987.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:\*
| SIDS2/gcgdata/geneseq/geneseqp-embl/AA1999.DAT:\*
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Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being puant is derived by analysis of the total score distribution. printed,

### SUMMARIES

| 10                                       | 8                    | o 0                                      | ھ :                | w                  | N                  | 1                  | Result                   |
|------------------------------------------|----------------------|------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------------|
| ა <u>ა</u><br>თ თ                        | 36<br>66             | 36                                       | 40                 | 40                 | 40                 | 40                 | Score                    |
| 90.0                                     | 90.0                 | 90.0                                     | 100.0              | 100.0              | 100.0              | 100.0              | Query<br>Match           |
| 368<br>380                               | 368<br>368           | 306<br>323                               | 380                | 380                | 380                | 380                | Query<br>Match Length DB |
| 20                                       | 210                  | 222                                      | 22                 | 21                 | 20                 | 15                 | BG                       |
| AAY08255                                 | AAY08256<br>AAB24151 | ABG02777<br>ABG11497                     | AAB83075           | AAB24142           | AAY08254           | AAR48379           | ID                       |
| Murine megsin prot<br>Rat megsin protein | Mouse megsin prote   | Novel human diagno<br>Novel human diagno | Human megsin prote | Human megsin prote | Human megsin prote | Human megakaryocyt | Description              |

|                                                                                                                                                                                                                                                                                                                        | 33<br>222<br>222<br>33<br>33<br>33<br>33<br>33<br>33<br>33<br>33<br>33<br>33                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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|                                                                                                                                                                                                                                                                                                                        | 380<br>380<br>380<br>319<br>319<br>331<br>931<br>931<br>944<br>959<br>1072<br>1072<br>1179<br>1179<br>11725                                                                                                                                                                                                                                                            |
|                                                                                                                                                                                                                                                                                                                        | 222222222222222222222222222222222222222                                                                                                                                                                                                                                                                                                                                |
| AAG52578<br>AAG52577<br>AAG37073<br>AAV38921<br>AAV18921<br>AAV35068<br>AAY38925<br>AAY38925<br>AAY38922<br>AAY38922<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY38924<br>AAY3892835<br>AAY38364<br>AAY92835<br>AAY92835<br>AAY92836 | AAB24150<br>AAG64286<br>AAB3076<br>ABG29897<br>ABG18342<br>AAY92833<br>AAB90528<br>AAY35082<br>AAY35082<br>AAY35082<br>AAB43351<br>AAG43514<br>AAG43514<br>AAB26753<br>AAG4432<br>AAG5846<br>AAG91461<br>AAG91461<br>AAG91461<br>AAG91461<br>AAG91461<br>AAG91461<br>AAG91461                                                                                          |
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## ALIGNMENTS

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Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.

Human megakaryocyte differentiation factor.

Homo sapiens

EP583884-A.

23-FEB-1994

19-JUL-1993; 93EP-0305654

17-JUL-1992; 04-MAR-1993; 92JP-0212305 93JP-0067339

(SUNR ) SUNTORY LTD. (TSUJ/) TSUJIMOTO M.

Ishida N, Iv Tsujimoto M, Iwasa F, Kurihara T, Miura K, Nakaza M, Tsuruoka N, Yamaguchi N, Yamaichi Nakazato H; maichi K;

WPI; 1994-058782/08. N-PSDB; AAQ56670.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KURO/)
                                                                                                                                                                This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                 Sequence
                                                                                                                                                 cells,
                                                                                                                                                                                                                                                                                       Claim 1; Page 62-64; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                     Megsin protein expressed specifically
                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Miyata T;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-SEP-1998;
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                             Local
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DB; AAX56712.
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    7; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KUROKAWA K.
MIYATA T.
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llarity 100.0%;
Conservative (
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                                                                                                                                               IgA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97JP-0275302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-JP04269.
                                                                                                                                               nephropathy.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                   in mesangial cells
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                                                                                                                The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the human megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Megsin;
IgA; imm
                                                                                                                                                                                                                                                                                                                                                                                             (KURO/)
                                                                                             Sequence
                                                                                                                                                                                                                                                                                   Evaluating renal function comprises assaying megsin protein biological sample
                                                                                                                                                                                                                                                                                                                       WPI; 2000-611642/58
N-PSDB; AAA99294.
                                                                                                                                                                                                                                                             Example 2; Page 66-69;
                                                                                                                                                                                                                                                                                                                                                         Miyata T;
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28-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human
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                                                                                                                                                                                                                                     present invention describes a method for evaluating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in; mesangium-predominant gene; serpin regulated; nephropathy;
immunoglobulin A; detection; renal function; renal disorder;
nosis; biological sample; blood; urine.
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) FUSO PHARM IND :
) MIYATA T.
                                             Similarity 7; Conserv
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            WQSAFTK 7
WQSAFTK 187
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                                                                                             380 AA;
                                              Conservative
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99JP-0306623.
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RESULT 5
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Matches 7
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                                                                                                                                                    Human; chromosome mapping; gene mapping; gene therapy; forensic food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments \,\cdot\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-300136/31.
N-PSDB; AAF82438.
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                  30-MAR-2001; 2001WO-US08631
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                                                                                                                                                                                                                                                                               ABG02777;
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                                                                                                                         Homo
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                                                                                                                                                                                                                                                                                                                 ABG02777 standard; Protein; 306
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                     sapiens
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ABG11497
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23-AUG-2000; 2000US-0649167.
31-MAR-2000;
23-AUG-2000;
                                                30-MAR-2001; 2001WO-US08631
                                                                                                                     WO200175067-A2
                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                             Novel
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food supplement; medical imaging; diagnostic; genetic disorder.
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                                                                                                                                                                                                                                                                                                                                                                                                                                       108
                                                                                                                                                                                                                                         human diagnostic protein #11488
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2000US-0649167
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The polypeptide and polynucleotide sequences have applications in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention.

Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from MIPO at fip.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (II). (II) is useful for generating antibodies against it, detecting or quantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical imaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity.
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Length 306
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CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC (II) (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II), (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human
CC diagnostic amino acid sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC at fire, wipo. introub/oublished in electronic format directly from WIPO
CC at fire, wipo. introub/oublished in electronic format directly from WIPO
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                              22-SEP-1998;
                                                                                                                                                                                                                                         Protein
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                                                                                                                                                                                                                                                                                                                                                                                         human;
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                                                                                                                                                                                                                                                                                                                                                                                      rat;
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                                                                                                                                                                                                                                                                                                                                                                                                           mesangial cell; treatment; diagnosis; disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAS75684.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 323 AA;
                                                                                                                                                                                                                                                                                                                                                                                         murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         relates
                              98WO-JP04269
                                                                                                                                                                                                                                         Location/Qualifiers
1..368
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to isolated
                                                                                                                                                                                                       "partial sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 36; DB pred. No. 57; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polynucleotide (I) and suseful as hybridisation probes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                              IgA nephropathy;
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RESULT 8
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Best Local S
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                                                         Evaluating renal function comprises assaying megsin protein biological sample \,\,\cdot\,\,
                                                                                        WPI; 2000-611642/58
N-PSDB; AAC55239.
                                                                                                                                                                                                                                                                                                   Megsin; mesangium-predominant gene; serpin regulated; n IgA; immunoglobulin A; detection; renal function; renal diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                                                        Miyata T;
                                                                                                                                                                                                                                                                                 Mus musculus.
                                                                                                                                                                                                                                                                                                                                            Mouse megsin
                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                          AAB24151 standard; Protein; 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 76-79; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-276983/23
N-PSDB; AAX56714.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Miyata T;
                                                                                                                                                                                      19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                  17-MAR-2000; 2000WO-JP01646.
                                                                                                                                                                                                                                         28-SEP-2000
                                                                                                                                                                                                                                                            WO200057189-A1
                                                                                                                                                                                                                                                                                                                                                                                        AAB24151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                            (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-SEP-1997;
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nes 6; Conserv
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                                                                                                                                                    KUROKAWA K.
FUSO PHARM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WQSAFTK 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              368 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                            protein sequence
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99JP-0306623.
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                                                                                                                                                                                                                                                                                                                                             SEQ
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al disorder;
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The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing

Disclosure;

Page 89-91; 93pp; Japanese

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RESULT 9
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Best Local S
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                                                                                                                                                                                                                                The present sequence is murine megsin protein. The human megsin coding sequence may be introduced into a mouse to produce an animal model of mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an immune complex and an increase in mesangial cells. The animal model is useful for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            renal function; and (2) a kit for detecting megsin protein comprising:
(a) antimegsin protein antibody attached to solid magnetic particles;
(b) direct or indirect fixing for the antibody to the particles; and
(c) a magnet. The process is useful for evaluating renal function and
diagnosing renal disorders by assaying megsin protein in biological
samples (preferably urine or blood). The process is reproducible and
gives accurate results. The present sequence represents the mouse megsin
protein, which is given in the exemplification of the present invention.
                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 52-53; 62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments \cdot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-300136/31.
N-PSDB; AAF82440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Miyata T;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mouse; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (KURO/) KUROKAWA K.
                                                  Local Similarity
hes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity es 6; Conserv
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  WQSAFTK 7
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                                                                                                                                                                368 AA;
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                                                        Conservative
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                                                                                 Score 36;
Pred. No.
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Pred. No.
                                                     Mismatches
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RESULT 10
AAX08255
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                                                                                    Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells.
                                                                                                                                                                                                                                   30-JAN-2001
                                                                                                                                                                                                                                                                                  AAB24150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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N-PSDB; AAX56712.
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                                                                                                                                                                                  Rat megsin protein sequence
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WKSAFTK 175
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Key

Location/Qualifiers

Rattus norvegicus

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                                                                                                                    05-JUL-2001
                                                                                                                                                                                                                Rattus norvegicus
                                                                                                                                                                                                                                                                                                            Rat megsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Evaluating renal function comprises assaying megsin biological sample -
                        28-DEC-1999;
                                                                   26-DEC-2000;
                                                                                                                                                                 WO200148019-A1
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N-PSDB; AAC55238.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAG64286 standard; Protein;
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(FUSO ) FUSO PHARM IND
(MIYA/) MIYATA T.
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28-OCT-1999;
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                                                                                                                                                                                                                                                               megsin; renal
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                                                                                                                                                                                                                                                             mesangial cell; mesangium proliferative nephritis
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The present sequence is rat megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an complex and an increase in mesangial cells. The animal model

animal model is useful

an immune

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of

Disclosure;

Page

48-50;

62pp; Japanese.

and screening

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RESULT 13
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                                                                               Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments -
                                                                                                            WPI; 2001-300136/31
N-PSDB; AAF82439.
                                                                                                                                          Miyata
                                                                                                                                                             (KURO/) KUROKAWA K. (MIYA/) MIYATA T.
                                                                                                                                                                                             06-OCT-1999;
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                                                                                                                                                                                                                                                                             Rattus
                                                                                                                                                                                                                                                                                              Rat; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening
                                                                                                                                                                                                                                                                                                                             Rat megsin protein
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N-PSDB; AAH48181.
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diagnosis of
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(MIYA/) MIYATA
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                  The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques to restore normal activity of (II) or to treat disease states involving quantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical inaging of sites expressing (II). (I) and (II) are useful for treating disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in capponable for genetic disorders or other traits to assess biodiversity and or produce other types of data and products dependent on DNA and diagnostic amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic amino acid sequences of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutation responsible for genetic disorders or other traits and to assess biodiversity
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23-AUG-2000;
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food supplement; medical imaging; diagnostic; genetic disorder.
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at ftp.wipo.int/pub/published_pct_sequences.
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                  Note: The sequence data for this patent did not appear in the specification, but was obtained in electronic format directly
                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to isolated polynucleotide (I) and
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N-PSDB; AAS82529.
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23-AUG-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WESEFTK 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          219 AA;
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2000US-0649167.
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No.
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2.2e+02;
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o assess
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                    from WIPO
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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model Run on: July 11, 2003, 11:49:36; Search time 1.25156 Seconds (without alignments) 164.563 Million cell updates/sec

Title: Perfect score: Sequence: US-10-091-442-2 40 1 WQSAFTK 7

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 262574 seqs, 29422922 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued\_Patents\_AA:\*

1: /cgn2\_6/ptodata/1/1aa/5A\_COMB.pep:\*
2: /cgn2\_6/ptodata/1/1aa/5B\_COMB.pep:\*
3: /cgn2\_6/ptodata/1/1aa/6A\_COMB.pep:\*
4: /cgn2\_6/ptodata/1/1aa/6B\_COMB.pep:\*
5: /cgn2\_6/ptodata/1/1aa/PCTUS\_COMB.pep:\*
6: /cgn2\_6/ptodata/1/1aa/backfiles1.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| 26<br>27                              | 25               | 24           | 23        | 22                | 21   | 20              | 19              | 18                | 17                  | 16   | 15              | 14               | 13   | 12               | 11                | 10                  | φ                | · &              | 7                | 6               | u    | 4                | ω                | N         | 1                 | Result         |
|---------------------------------------|------------------|--------------|-----------|-------------------|------|-----------------|-----------------|-------------------|---------------------|------|-----------------|------------------|------|------------------|-------------------|---------------------|------------------|------------------|------------------|-----------------|------|------------------|------------------|-----------|-------------------|----------------|
| 28<br>28                              | 28               | 28           | 28        | 28                | 28   | 28              | 28              | 28                | 28                  | 28   | 28              | 28               | 28   | 28               | 28                | 28                  | 28               | 28               | 29               | 30              | 30   | 40               | 40               | 40        | 40                | Score          |
| 70.0                                  | 70.0             | 70.0         | 70.0      | 70.0              | 70.0 |                 | •               | 70.0              | 70.0                | 70.0 |                 | •                | 70.0 | •                | 70.0              | 70.0                |                  | •                | 72.5             | 75.0            | 75.0 | •                | 100.0            | 100.0     | 100.0             | Query<br>Match |
| 453                                   | 452              | 452          | 452       | 452               | 452  | 452             | 452             | 452               | 412                 | 269  | 261             | 189              | 189  | 189              | 189               | 177                 | 146              | 146              | 381              | 385             | 385  | 380              | 380              | 380       | 7                 | Length         |
|                                       | Ç,               | -            | -         | <u>ب</u>          | 1    | _               | ш               | <b>بس</b> ا       | 4                   | N    | 4               | 4                | N    | N                | N                 | 4                   | _                | <b>.</b>         | 4                | 4               | w    | N                | N                | N         | N                 | BB             |
| US-08-275-488A-12<br>US-08-275-490-12 | PCT-US95-08919-2 | -08-275-487- | -08-445-8 | US-08-446-382-2   | •    | US-08-446-380-2 | US-08-275-490-2 | US-08-275-488A-2  | US-09-134-001C-4885 | -07  | US-09-045-973-3 | US-09-201-912-46 | ۵    | US-07-965-285-46 | US-08-483-695-46  | US-09-134-001C-4482 | US-08-420-526-11 | US-08-543-238-11 | US-09-216-295-22 | US-09-479-130-2 |      | US-08-611-977-34 | US-08-474-661-34 | -472-659- | US-08-611-977-2   | ID .           |
| 12,<br>12,                            | 'n               | 2            | 2         | Sequence 2, Appli | 2    | ν,              | ٧,              | Sequence 2, Appli | 4885                | 48,  | ω<br>Α          | 46,              | 46,  | 46,              | Sequence 46, Appl | 4482                | 11,              | -                | 22,              | Ņ               | 2, 2 | 34,              | -                | 34        | Sequence 2, Appli | Description    |

## ALIGNMENTS

7 amino acids

Best Local Similarity 100.0%; Matches 7; Conservative (

Pred. No. 2.3; ); Mismatches

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Indels

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Gaps

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; MOLECULE TYPE: US-08-472-659-34
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  Query Match
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                                                                                                                TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ent No.
                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
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                                                                                 LENGTH: 380 amino acids
                                                                                                                                                                                                                                                                                                 RIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                          TELEPHONE:
                                                                                                                                                                               REGISTRATION NUMBER: 39,300
                                                                                                                                                                                                           FILING DATE: 14-JUL-1993
TORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/472,659 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity nes 7; Conserv
                                                           TOPOLOGY:
                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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                                                                                                                                                                                                                                                         APPLICATION DATA:
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                                                                   amino acid
                                                                                                                                                                                                 McGowan, Malcolm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E: Burns, Doane, Swecker & Mathis P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     United States
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NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                               IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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YAMAICHI, Kozo
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                                                                                                                                             (703)
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                                          protein
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14-JUL-1993
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MEGAKARYOCYTE DIFFERENTIATION FACTOR
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  100.0%;
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Pred. No.
 Score 40;
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Length 380;
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US-08-474-661-34
                                                            Matches
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                                                                         Best Local
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                                                                                                                                                                                                           TELEFAX: (703) 836-66 INFORMATION FOR SEQ ID NO:
                                                                                                                                 TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Rele
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                               FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
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                                                                                                                                                                              LENGTH: 380 amino acids
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                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 17-JUL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 07-JUL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
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181 WQSAFTK 187
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                              1 WQSAFTK 7
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                                                          Similarity 7; Conserv
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                                                                                                                                                              amino acid
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                                                          Conservative
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NAKAZATO, Hiroshi
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SYSTEM: PC-DOS/MS-DOS
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                                                                         100.0%;
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                                                       Score 40; DB 2; L
Pred. No. 2.3;
Pred. No. 2.3;
                                                                                      DB 2; Length 380;
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PROTEASE-ACTIVATED RECEPTOR

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                                                                                                                 US-09-053-866-2
                                                                                                                                RESULT 5
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                                                                              Sequence 2,
Patent No.
                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                           Query Match
Best Local S
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                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 17-JUL-1
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 14-JUL-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Burns, Doane, Swecker & Mathis STREET: P.O. Box 1404
CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/611,977 FILING DATE: 06-MAR-1996 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 001560-204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 14-JUI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: United States
                                                                                                                                                                               181 WQSAFTK 187
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                                                                 INFORMATION:
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                                                                                                                                                                                                            1 WQSAFTK 7
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                                                                                                                                                                                                                                            Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INVENTION:
                                                                                                 Application US/09053866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Virginia
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Xu, Wenfeng
Presnell, Scott R.
Yee, David P.
Foster, Donald C.
                                                                                                                                                                                                                                                                                                                                                                                                                          (703)
                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, NO. 5972886omi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-MAR-1993
                                                                                                                                                                                                                                                         100.0%;
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                               Scott R.
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Pred. No.
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                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                         APPLICANT:
APPLICANT:
APPLICANT:
                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6674
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                                                                                                                                                  NUMBER OF SEQUENCES: 1
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PRIOR APPLICATION DATA:
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                                                                                                                                                                            APPLICANT: FOSTER, Donald C.
TITLE OF INVENTION: PROTEASE-ACTIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
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COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Leith, Debra K REGISTRATION NUMBER:
                                                                                                                          STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 206-442-6678
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                                                                                COUNTRY:
                                                                                                                                     ADDRESSEE:
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                                                                                             Seattle
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                                                                                                                                                                                                                                    Presnell,
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                                                                                                                                    ZymoGenetics, Inc
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internal
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mell, Scott R.
                                           Diskette
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83.3%;
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Pred. No. 1.8e+02;
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RESULT 8
US-08-543-238-11
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; TYPE: PRT
; ORGANIZM: Streptomyces lividans CelB
US-09-216-295-22
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CURRENT FILING DATE: 1998-12-18
NUMBER OF SEQ ID NOS: 41
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 22
                                                                                                  Sequence 11, Application US/08543238 Patent No. 5607919
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Best Local Similarity 83.3%;
Matches 5; Conservative
                                                                                                                                                                                                                                                      Matches
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Best Local Similarity
                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Mitchinson, CAPPLICANT: Wendt, Dan J.
                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE:
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                                      APPLICANT:
APPLICANT:
APPLICANT:
TITLE OF
NUMBER OF
                          APPLICANT:
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FRAGMENT TYPE:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-442-6674
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NAME: Leith, Debra K
REGISTRATION NUMBER: 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
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                                                                                                                                                                                            309 WQLAFT 314
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             INVENTION:
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                                      Bojsen, Kirsten
Kragh, Karsten M.
Mikkelsen, Jorn D
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                       Nielsen, Klaus K.
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internal
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            Anti-Microbial Proteins
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Pred. No. 2.8e+02;
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Pred. No. 1
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US-08-420-526-11
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APPLICANT: BOJSen, Kirsten
APPLICANT: Kragh, Karsten M.
APPLICANT: Mikkelsen, Jorn D
APPLICANT: Nielsen, Klaus K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 415/857-1125
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Sandoz Agro, Inc.
STREET: 975 California Avenue
                                                               CLASSIFICATION: 800 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Mikkelsen, Jorn D.
APPLICANT: Nielsen, Klaus K.
TITLE OF INVENTION: Anti-Microbial Proteins
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
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NAME: Marcus-Wyner, Lynn
REGISTRATION NUMBER: 34,8
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MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
               NAME: Marcus-Wyner, Lynn REGISTRATION NUMBER: 34,869 REFERENCE/DOCKET NUMBER: 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                    COUNTRY: UZIP: 94304
                                                                                                  FILING DATE:
                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                 CITY: Palo Alto
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57.1%;
                                                                                                                  US/08/420,526
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                 137-1078/MA
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Pred. No.
                                                                                                                                                 Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.7e+02;
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                                                                                                                                                  #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 146;
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415/857-1125

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CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 4482
LENGTH: 177
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Thes 4; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                      US-08-483-695-46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Staphylococcus epidermidis US-09-134-001C-4482
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                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                   Sequence 46,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: NUCLEIC ACID AND ANIO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: GTC-007
                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                       TITLE OF INVENTION: Nucleotide and Peptide Sequences of a TITLE OF INVENTION: Hepatitis C Virus Isolate, Diagnostic TITLE OF INVENTION: Applications
NUMBER OF SEQUENCES: 46
CORRESPONDENCE ADDRESS:
ADDRESSE: PAGE ADDRESS:
                         COUNTRY: USA
ZIP: 20005-3315
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 146 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                            APPLICANT: Kremsdorf, Dina APPLICANT: Porchon, Colette
                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                STREET: 1300 1 S
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
nes 5; Conserv
                                                                                                                                  ADDRESSEE: Finnegan, Henderson, Farabow, ADDRESSEE: Dunner STREET: 1300 I Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         116 WDTVFTK 122
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PC-DOS/MS-DOS
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Pred. No.
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Pred. No.
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1.7e+02;
2;
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                                                                                                                                                                                                                                            and Therapeutic
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;; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-483-695-46
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Best Local :
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                                                                                                         APPLICATION NUMBER: US/07/965,285
FILING DATE: 18-MAR-1993
CLASSIFICATION: 45
PRIOR APPLICATION DATA:
APPLICATION NUMBER: FR 91 06 882
FILING DATE: 06-JUN-1991
NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 25,146
REFERENCE/DOCKET NUMBER: 05286-0001-00000
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                     FILING DATE: 06-JUN-1991
ATTORNEY/AGENT INFORMATION:
NAME: Meyers, Kenneth J.
                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 189 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 06-JUN-1991
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Finnegan, Henderson, ADDRESSEE: Dunner STREET: 1300 I Street, N.W.
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REGISTRATION NUMBER: 25,146
REFERENCE/DOCKET NUMBER: 05286-0001-00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/OFFILING DATE: 18-MAR-1993
APPLICATION NUMBER: FR (APPLICATION NUMBER)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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5879904
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                                                                                                                                                                                                                                       PatentIn Release #1.0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleotide and Peptide Sequences of a Hepatitis C Virus Isolate, Diagnostic and Therapeutic
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Pred. No. 2.
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                                                                                                                                                                                                                                       Version #1.25
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RESULT 13
US-08-487-231-46
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                  Query Match
Best Local
   Matches
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APPLICANT: Brechot
                                                                                                                                    INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 05
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                   APPLICATION NUMBER: FR 91 06 FILING DATE: 06-JUN-1991 ATTORNEY/AGENT INFORMATION: NAME: Meyers, Kenneth J. 16 REGISTRATION NUMBER: 25.146 REGISTRATION NUMBER: 25.146
                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 07/965,285
APPLICATION NUMBER: US 07/965,285
FILING DATE: 18-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                 TELEPHONE: 202-408-4400
                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: FILING DATE: 07-JUN CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC
OPERATING SYSTEM:
                Local
                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Dunner
ADDRESSEE: Dunner
STREET: 1300 I Street, N.W.
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TOPOLOGY: linear
                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     104 WESVFT 109
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 Similarity 4; Conserv
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                                                                                         amino acid
GY: linear
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                                                                                                                   189 amino acids
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   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kremsdorf,
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                                                                                                                                                                                                                                                                                                                                                                                                                                               IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nucleotide and Peptide Sequences of a Hepatitis C Virus Isolate, Diagnostic and Therapeutic Applications . 46
               70.0%;
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Score 28; DB Pred. No. 2.2e 1; Mismatches
                                                                                                                                                                                                            05286-0001-02000
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Pred. No.
                                                                                                                                                                                                                                                                                  882
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             DB 2;
2.2e+02;
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                           Length 189;
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 Indels
0;
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Gaps
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RESULT 15
US-09-045-973-3
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US-09-201-912-46
                                                                                                                                              Designment No. 6165767
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APPLICANT: Brechot
APPLICANT: Kremsdo
APPLICANT: Porchon
                                                                                                                                                                                                                                                                                                                              Matches
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Best Local
                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 202-408-4400 INFORMATION FOR SEQ ID NO:
                                               APPLICANT: Lal, Preeti
APPLICANT: Yue, Henry
APPLICANT: Corley, Neil C.
APPLICANT: Guegler, Karl J.
APPLICANT: Baughn, Mariah
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 189 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
               APPLICANT: Baughn, Mariah
TITLE OF INVENTION: PROTEIN PHOSPHATASE RELATED MOLECULES
NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: peptide
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 25,146
REFERENCE/DOCKET NUMBER: 05286-0001-00000
                                                                                                                                                                                                                                                                                                                            Local Similarity
nes 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
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SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: Incyte Pharmaceuticals, Inc.

STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: California
COUNTRY: USA
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                  Sequence 2, Appli
Sequence 34, Appl
Sequence 34, Appl
Sequence 5315, Ap
Sequence 655, Ap
Sequence 157, App
Sequence 172, App
Sequence 172, App
Sequence 516, Appl
Sequence 516, App
Sequence 6127, Ap
Sequence 6151, App
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                                                                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/10091442
Patent No. US20020164711A1
GENERAL INFORMATION:
APPLICANT: TSUJIMOTO, Masafur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Alexandria

STATE: Virginia

STATE: United States

COUNTRY: United States

ZIP: 22313-1404

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Ver

CURRENT APPLICATION DATA:

APPLICATION UNMBER: US/10/091,442

FILING DATE: 07-Mar-2002

CLASSIFICATION: CUMPOWN'S

PRIOR APPLICATION DATA:

APPLICATION NIMBER: US/00/140 710
                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane,
STREET; P.O. Box 1404
                                                                                                                                                                                                                                                                 NUMBER
APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995 APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993 APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992 APPLICATION NUMBER: JP 6-067339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                               KURIHARA, Tatsuya
YAMAICHI, Kozo
YAMAGUCHI, NO. US20020164711A1om1
OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
R OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIURA, Kenju
ISHIDA; No. US20020164711Aluhiro
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US-10-156-761-7796
US-09-738-626-6003
US-10-078-770-66
US-09-915-242-14022
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                APPLICATION NUMBER: JP 4-FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: YAMAGUCHI, NO. US20010026931A10m1
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                    APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-JUL-1993
                                                                                                                                                                                                                                                                                COMPUTER: IBM PC
OPERATING SYSTEM:
                    APPLICATION NUMBER:
                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 08-AU
                                                                                                                                                                                                                                                                     SOFTWARE: Patentin
                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: peptide SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
TELEFAX: (703) 836-2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: peptid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   SSEE: Burns, Doane, Swecker & Mathis
T: P.O. Box 1404
Alexandria
                                                                                                                                                                                                                                                                                                                                                     RY: United States 22313-1404
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REFERENCE/DOCKET NUMBER: 001560-247
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KURIHARA, Tatsuya
YAMAICHI, KOZO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TSUROUOKA, No. US20010026931A1uo NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIURA, Kenju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ISHIDA,
                                                                                                                                                                                                                                                                                   IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUJIMOTO, Masafumi
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UMBER: JP 6-067339
04-MAR-1993
                                                                                                                                                                                                                    UMBER: US/09/140,719
08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DATE: 04-MAR-1993
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                                                                                                                                                                                                                                                                    Release #1.0; Version #1.30
                                                                    JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US20010026931A1uhiro
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Pred. No.
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US-10-091-442-34
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: sin
TOPOLOGY: linear
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ATTORNEY/AGENT INFORMATION:
NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/09/140,719
FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: P.O. Box 1404
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TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Alexandria
STATE: Virginia
                                                                                                                 APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                      APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                             APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: <Unknown>
                                                                                                                                                                                                         APPLICATION NUMBER: US 08/091,028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY: United States
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YAMAICHI, Kozo
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NAKAZATO, Hiroshi
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Pred. No.
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SEQUENCE DESCRIPTION: SEQ ID NO: US-10-091-442-34
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Best Local Similarity
7; Conserve
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Patent No.
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                                                 TELEFAX: (703) 836-20 INFORMATION FOR SEQ ID NO:
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SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Patentin Relucurement APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 08-AUG-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Computible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6
FILING DATE: 04-MAR-1993
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
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                 SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                               NAME: MCGOVAN, MAICOLM K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI, NO. US20010026931A10m1
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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                                                                                                                                                                                                                                      APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: United States ZIP: 22313-1404
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US20010026931A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E: Burns, Doane, Swecker & Mathis
P.O. Box 1404
                                                               (703) 836-6620
(703) 836-2021
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TSUROUOKA, No. US20010026931Aluo
NAKAZATO, Hiroshi
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                                                                                                                                                                                                      JP 6-067339
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; ORGANISM: Homo sapiens
US-09-764-853-656
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TYPE: PRT
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                               TYPE: PRT
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RESULT 6
US-09-764-853-656
: Sequence 656, Application US/09764853
: Patent No. US20020090672A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Corynebacterium glutamicum US-09-738-626-5215
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 656
LENGTH: 168
                                                                                                                             GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
FILE REFERENCE: PJZ06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn ver. SEQ ID NO 5215
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                                                                                         CURRENT APPLICATION NUMBER: US/09/764,853 CURRENT FILING DATE: 2001-01-17
                                                         Prior application data removed - consult PALM or file wrapper NUMBER OF SEQ ID NOS: 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 7059
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                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
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Local Similarity 100.0%;
les 7; Conservative
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181 WQSAFTK 187
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                                                                                                                                                                                                                                                                                                                                        1 WQSAFTK 7
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TATEISHI, NAOKO
SENOH, AKIHIRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IKEDA, MASATO
OZAKI, AKIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HAYASHI, MIKIRO
OCHIAI, KEIKO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIZOGUCHI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANDO,
                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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71.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                            Score 31;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 40; DB Pred. No. 3.6;
                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                              DB 9;
67;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                           Length 125;
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Best Local S
Matches . 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 09/764,879 PRIOR FILING DATE: 2001-01-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPLICANT: Rosen et al.
ITLE OF INVENTION: Nucleic Acids, Proteins,
                                                                                                                                                                                                                                                                                                                                                                                                    JR APPLICATE 2000-U, DR FILING DATE: 2000-U, DR FILING DATE: 2000-08-14
OR APPLICATION NUMBER: 60/216,880
IOR APPLICATION NUMBER: 60/216,880
OF TITMG DATE: 2000-07-07
FILING DATE: 60/225,270
DR APPLICATION NUMBER: 60/236,369
R FILLING DATE: 2000-09-29
DR APPLICATION NUMBER: 60/224,519
DR FILLING DATE: 2000-08-14
DR APPLICATION NUMBER: 60/220,964
DR FILLING DATE: 2000-07-26
DR APPLICATION NUMBER: 60/241,809
DR FILLING DATE: 2000-10-20
DR FILING DATE: 2000-10-20
DR APPLICATION NUMBER: 60/249,299
DR APPLICATION NUMBER: 60/249,299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OR APPLICATION NUMBER: 60/214,886
DR FILLING DATE: 2000-06-28
DR APPLICATION NUMBER: 60/217,487
OR FILING DATE: 2000-07-11
OR APPLICATION NUMBER: 60/225,758
DR FILLING DATE: 2000-08-14
OR APPLICATION NUMBER: 60/220,963
OR APPLICATION NUMBER: 60/217,496
DR APPLICATION NUMBER: 60/217,496
DR APPLICATION NUMBER: 60/217,496
DR APPLICATION NUMBER: 60/217,496
DR APPLICATION NUMBER: 60/217,496
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R APPLICATION NUMBER: 60/2:
R FILING DATE: 2000-08-30
R FILING DATE: 2000-08-14
R FILING DATE: 2000-08-14
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R APPLICATION NUMBER: 60/2
R FILING DATE: 2000-08-22
R APPLICATION NUMBER: 60/2
R FILING DATE: 2000-07-07
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FILING DATE: 2000-09-21
APPLICATION NUMBER: 60/
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                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/235,834 FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 2000-12-08
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FILING DATE: 2000-08-14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 5; Conserv
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5. US20030077606A1
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                                                                                                                                                                                   60/224,518
                                                                                                                                                                                                                      60/228,924
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APPLICATION NUMBER: 60/
FILING DATE: 2000-08-14
APPLICATION NUMBER: 60/
FILING DATE: 2000-09-27
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FILING DATE: 2000-08-22
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FILING DATE: 2000-08-14
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FILING DATE: 2000-10-13
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FILING DATE: 2000-10-20
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FILING DATE: 2000-09-01
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                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/249,216 FILING DATE: 2000-11-17
                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/246,532
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                                                                                                                                                                                                                    NUMBER: 60/249,210
2000-11-17
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FILING DATE: 2000-08-14
APPLICATION NUMBER: 60/249,218
FILING DATE: 2000-11-17

APPLICATION NUMBER: 60/225,266

2000-09-06 IUMBER: 60/ 2000-06-30

APPLICATION NUMBER: 60/230,438

APPLICATION NUMBER: 60/215,135

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Best Local
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PR FILING DATE: 2000-11-17
PR APPLICATION NUMBER: 60/249,215
PR FILING DATE: 2000-11-17
PR APPLICATION NUMBER: 60/249,264
PR APPLICATION NUMBER: 60/249,264
PR FILING DATE: 2000-11-17
PR FILING DATE: 2000-11-17
PR APPLICATION NUMBER: 60/249,214
PR APPLICATION NUMBER: 60/249,297
PR FILING DATE: 2000-11-17
PR APPLICATION NUMBER: 60/232,400
PR FILING DATE: 2000-09-14
PR APPLICATION NUMBER: 60/231,242
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RR FILING DATE: 2000-11-17
RR APPLICATION NUMBER: 60/249,207
RR FILING DATE: 2000-11-17
RR APPLICATION NUMBER: 60/249,245
RR FILING DATE: 2000-11-17
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R FILING DATE: 2000-09-08
R APPLICATION NUMBER: 60/233,064
R FILING DATE: 2000-09-14
R APPLICATION NUMBER: 60/233,063
R FILING DATE: 2000-09-14
                                                                                                                                                               APPLICATION NUMBER: 60/246,475
FILING DATE: 2000-11-08
APPLICATION NUMBER: 60/231,243
FILING DATE: 2000-09-08
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APPLICATION NUMBER: 60/3
FILING DATE: 2000-09-08
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APPLICATION NUMBER: 60/
FILING DATE: 2000-10-20
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APPLICATION NUMBER: 60/232,401
FILING DATE: 2000-09-14
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FILING DATE: 2000-11-17
APPLICATION NUMBER: 60/249,213
FILING DATE: 2000-11-17
                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/241,826 FILING DATE: 2000-10-20 APPLICATION NUMBER: 60/241,786
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1 WQSAFTK 7
                                                                Similarity
5; Conserv
                                                                                         77.58;
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                                                                Score 31; DB
Pred. No. 1e+0
0; Mismatches
                                                                     0
                                                                                         DB 9;
le+02;
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                                                                                                                Length 194;
                                                                   Indels
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NUMBER OF SEQ ID NOS: 157
SEQ ID NO 65
LENGTH: 978
TYPE: PRT
ORGANISM: Chlamydia pneumoniae
US-10-007-693-65
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US-10-007-693-65
                                                                       Best Loc
Matches
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                                                                                                           Query Match
                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/007,693
CURRENT FILING DATE: 2001-12-05
NUMBER OF SEQ ID NOS: 157
                                                                                                                                                                                                                                                                                            APPLICANT: Probst, Peter
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR TREATMENT
TITLE OF INVENTION: AND DIAGNOSIS OF CHLAMYDIAL INFECTI
FILE REFERENCE: 210121.515C2
                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Bhatia, Ajay APPLICANT: Probst, Pet
                                                                       Local Similarity 71.4 nes 5; Conservative
854 WQSKFTE 860
                                  1 WQSAFTK 7
                                                                                        77.58;
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                                                                       Score 31; DB 12;
Pred. No. 5.2e+02;
1; Mismatches 1
                                                                                                         Length 978;
                                                                        Indels
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PRIOR FILING DATE: 1997-12-18
PRIOR APPLICATION NUMBER: 60/068,064
PRIOR FILING DATE: 1997-12-18
PRIOR APPLICATION NUMBER: 60/068,054
PRIOR APPLICATION NUMBER: 60/068,008
PRIOR FILING DATE: 1997-12-18
PRIOR APPLICATION NUMBER: 60/068,008
PRIOR FILING DATE: 1997-12-18
PRIOR PRIOR FILING DATE: 1997-12-19
PRIOR FILING DATE: 1997-12-19
NUMBER: 00 SEQ ID NOS: 672
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 172 US-10-097-065-172 GENERAL INFORMATION: Sequence 172, A Publication No. PRIOR PRIOR APPLICANT: MOORE, Paul TITLE OF INVENTION: 110 FILE REFERENCE: PZ021P1 PRIOR PRIOR CURRENT APPLICATION NUMBER: US/10/097,065 CURRENT FILING DATE: 2002-03-14 PRIOR PRIOR PRIOR PRIOR PRIOR APPLICATION NUMBER: PCT/US98/27059 OR FILING DATE: 1998-12-17
OR APPLICATION NUMBER: 60/070,923
OR FILING DATE: 1997-12-18
OR APPLICATION NUMBER: 60/068,007
OR FILING DATE: 1997-12-18
OR APPLICATION NUMBER: 60/068,057
OR FILING DATE: 1997-12-18
OR FILING DATE: 1997-12-18 APPLICATION NUMBER: 60/068,006 FILING DATE: 1997-12-18 APPLICATION NUMBER: 60/068,369 FILING DATE: 1997-12-19 APPLICATION NUMBER: 60/068,367 FILING DATE: 1997-12-19 APPLICATION NUMBER: 60/068,368 APPLICATION NUMBER: 60/ FILING DATE: 1997-12-19 APPLICATION NUMBER: 60/068,053 APPLICATION NUMBER: 60/068,169 FILING DATE: 1997-12-19 Application US/10097065 US20030055236A1 Paul A. Human Secreted Proteins

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; ORGANISM: Homo sapiens
US-10-225-567A-516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: SITE
: LOCATION: (195)
: OTHER INFORMATION: Xaa equals stop translation
US-10-097-065-172
                                                                                                                                                                                                                                                                                                                                                              US-09-738-626-6127
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APPLICANT:
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                                                                 CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/225,567A CURRENT FILING DATE: 2001-12-19 PRIOR APPLICATION NUMBER: 60/257,144 PRIOR FILING DATE: 2000-12-19 NUMBER OF SEQ ID NOS: 2292 NUMBER OF SEQ ID NOS: 2292 SOFTMARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Brown, Joseph P.
APPLICANT: Burmer, Glenna C.
APPLICANT: Roush, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
FILE REFERENCE: 1920-4-4
PRIOR FILING DATE: 2000-04-07
                                                                                                    APPLICANT: OZAKI, AKIO
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: LifeSpan Biosciences APPLICANT: Brown, Joseph P.
                                 PRIOR APPLICATION NUMBER: JP 99/377484 PRIOR FILING DATE: 1999-12-16
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5; Conservative
                                                                                                                                                                 YOKOI, HARUHIKO
TATEISHI, NAOKO
SENOH, AKIHIRO
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                                                                                                                                                                                                                      HAYASHI, MIKIRO
OCHIAI, KEIKO
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                                                                                                                                                       IKEDA, MASATO
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83.3%;
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71.4%;
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Pred. No. 1.6e+02;
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                                                                                                            SOFTWARE: PE
SEQ ID NO 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 158, Application US/10204887 Publication No. US20030124569A1
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Best Local
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                                                                                                                                                                                                                        60/205,324; 60/205,286
PRIOR FILING DATE: 2000-02-24; 2000-02-24; 2000-05-16; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 2000-05-17; 
                                                                                                                                                                                     2000-05-17; 2000-05-17
NUMBER OF SEQ ID NOS: 159
                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/204,887
                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: HODGSON, David M.:
APPLICANT: LINCOLN, Stephen E.
TITLE OF INVENTION: SECRETIORY MOLECULES
FILE REFERENCE: PT-1134 PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR FILING DATE: 2000-08-03 NUMBER OF SEQ ID NOS: 7059
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TYPE: PRT
ORGANISM: Homo sapiens
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                                                                             LENGTH: 145
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BRADLEY, Diana L.
BRATCHER, Shawn R.
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D'SA, Steven A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHALUP, Michael CHANG, Simon C.
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DUFOUR, Gerard E.
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SPIRO, Peter A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WRIGHT, Rachel J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FLORES, Vincent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AMSHEY, Stefan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AP, Pierre E.
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Pred. No.
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. 5.8e+02;
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NAME/KEY: misc\_feature

FEATURE:

; OTHER INFORMATION: Incyte ID No. US20030124569A1 LI:221836.3.orf2:2000MAY01 US-10-204-887-158

Query Match

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US-09-738-626-4605
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APPLICANT: ANDO, SEIKO
APPLICANT: HAYASHI, MIKIRO
APPLICANT: OCHIAI, KEIKO
APPLICANT: YOKOI, HARUHIKO
APPLICANT: TATEISHI, NAOKO
APPLICANT: TEDA, MASATO
APPLICANT: OZAKI, AKID
APPLICANT: OZAKI, AKID
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-125
CURRENT APPLICATION UMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/738,626
CURRENT FILING DATE: 2000-12-18
PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
PRIOR FILING DATE: 2000-08-03
NUMBER OF SEQ ID NOS: 7059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 7059
SOFTWARE: PatentIn ver. 3.0
SEQ ID NO 6151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 6151, Application US/09738626 Publication No. US20020197605A1
                                                                                                                                                                                                                                                               Sequence 4605, Application US/09738626 Publication No. US20020197605A1
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: NAKAGAWA, SATOSHI
APPLICANT: MIZOGUCHI, HIROSH
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4; Conserv
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OCHIAI, KEIKO
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ANDO, SEIKO
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TATEISHI, NAOKO
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Pred. No. 2.2e+02
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Pred. No. 1.9e+02;
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APPLICANT: Benson, Darin R.

APPLICANT: Secrist, Heather
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: THE THERAPY AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.475C10
CURRENT APPLICATION UMBER: US/09/854,133
CURRENT FILING DATE: 2001-05-11
CURRENT FILING DATE: 2001-05-11
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 397
LENGTH: 307
TYPE: TOTAL
Search completed: July 11, Job time: 3.05198 secs
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                                                                                                                                                                                                                      US-09-854-133-397
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US-09-738-626-4605
                                                                                                                                               Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 397, Appublication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn ver. 3.0 SEQ ID NO 4605
                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: JP 99/377484
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: JP 00/159162
PRIOR FILING DATE: 2000-04-07
PRIOR APPLICATION NUMBER: JP 00/280988
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                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
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                                                                                                                                         Local Similarity
les 5; Conserv
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187 WQSAYSE 193
                                                                     212 WQYAFT 217
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Henderson, Robert A.
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                  2003, 12:37:32
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Pred. No. 4e+02;
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Pred. No. 3e+02;
3; Mismatches
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Minimum DB :
Maximum DB :
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Maximum Match 100%
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pir2:*
pir3:*
pir4:*
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  GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd
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| •     | SULT 1 3721 3721 romate transporter chrA [imported] - Bacillus halodurans (strain C-125) Species: Bacillus halodurans | ted] - B | rodi | r chrA [imp | orter c | SULT 1<br>13721<br>romate transporter chrA<br>Species: Bacillus halod | SULT 1<br>3721<br>Fromate<br>Species |
|-------|-----------------------------------------------------------------------------------------------------------------------|----------|------|-------------|---------|-----------------------------------------------------------------------|--------------------------------------|
|       | ALIGNMENTS                                                                                                            | · ALIG   |      |             |         |                                                                       |                                      |
| ote   | hypothetical prote                                                                                                    | T40379   | N    | 550         | 75.0    | 30                                                                    | 45                                   |
| ein   | related to protein                                                                                                    | T49355   | N    | 521         | 75.0    | 30                                                                    | 44                                   |
| prote | hypothetical pr                                                                                                       | S75597   | N    | 504         | 75.0    | 30                                                                    | 43                                   |
| nth   | anthranilate synth                                                                                                    | E70352   | N    | 494         | 75.0    | 30                                                                    | 42                                   |
| ote   | hypothetical prote                                                                                                    | T20700   | N    | 479         | 75.0    | 30                                                                    | 41                                   |
| ia    | glutamate-ammonia                                                                                                     | T14292   | N    |             | 75.0    | 30                                                                    | 40                                   |
| ia    | glutamate-ammonia                                                                                                     | AJFBQD   | Ц    |             | 75.0    | 30                                                                    | 39                                   |
| ne    | probable membrane                                                                                                     | AG0301   | N    |             | 75.0    | 30                                                                    | 38                                   |
| ī     | protein C05E4.1 [1                                                                                                    | D88940   | Ν    | 359         | 75.0    | 30                                                                    | 37                                   |
| y1t   | DNA beta-glucos                                                                                                       | XUBPB4   | ۳    | 351         | 75.0    | 30                                                                    | 36                                   |
| ida   | cytochrome c oxida                                                                                                    | G97742   | N    | 337         | 75.0    | 30                                                                    | ა<br>5                               |
| het   | conserved hypothet                                                                                                    | C95864   | N    | 324         | 75.0    | 30                                                                    | 34                                   |
| prote |                                                                                                                       | D84098   | N    | 317         | 75.0    | 30                                                                    | မ                                    |
| prote | hypothetical pr                                                                                                       | S72601   | N    | 296         | 75.0    | 30                                                                    | 32                                   |
| prote | hypothetical pr                                                                                                       | S75994   | N    | 275         | 75.0    | 30                                                                    | 31                                   |
| prote | hypothetical pr                                                                                                       | AF2025   | N    | 273         | 75.0    | 30                                                                    | 30                                   |
|       |                                                                                                                       |          |      |             |         |                                                                       |                                      |
|       |                                                                                                                       |          |      |             |         |                                                                       |                                      |

C;Accession: F83721
R;Takami, H; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fuji, F.; H
Nucleic Acids Res. 28, 4317-4331, 2000
A;Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans a
A;Reference number: A83650; MUID:20512582; PMID:11058132
A;Accession: F83721
A;Status: preliminary
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-397 <STO>
A;Cross-references: GB:AP001509; GB:BA000004; NID:g10173176; PIDN:BAB04293.1; GSPDB:G
A;Experimental source: strain C-125 A;Status: preliminary; translated A;Molecule type: DNA A;Residues: 1-865 <WOO> A;Cross-references: EMBL:AL022071; A;Experimental source: Strain 972h C;Genetics: RESULT T40288 В A; Gene: chrA C; Superfamily: C; Genetics: A; Map position: A; Introns: 58/2 A; Gene: Best Lo Query Match Local SPDB:SPBC354.08c 160 WQTAFTQ 166 1 WQSAFTK 7 Similarity 5; Conserv chromate resistance protein Conservative EMBL:AL022071; PIDN:CAA17808.1; GSPDB:GN00067; SPDB:SPBC354.08c se: strain 972h-; cosmid c354 82.5%; Score 33; DB Pred. No. 28; 2; Mismatches from GB/EMBL/DDBJ 2 0 Length 397 Indels 0 Gaps 0

Query Match Best Local S Matches 5

h 82.5%; Similarity 71.4%; 5; Conservative

Pred. No. 65; 1; Mismatches

2;

Length 865

Indels

0;

Gaps

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RESULT
C69451
                                                                                                                            cationic amino acid transporter (cat-1) homolog - Archaeoglobus fulgidus C;SpecLes: Archaeoglobus fulgidus C;Date: 05-Dec1997 #sequence_revision 05-Dec-1997 #text_change 22-Oct-1999 C;Accession: C69451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Appl. Environ. Microbiol. 54, 3147-3155, 1988
A;Title: Nucleotide sequences of Saccharomycopsis fibuligera A;Reference number: A45956; MUID:89133518; PMID:3146949
A;Statum. B45956
A;Authors: Utterback, T.; Cotton, M.D.; Spriggs, T.; Smith, H.O.; Woese, C.R.; Venter, J.C.
A;Title: The complete genome sequence of the hyperthe
                                                    Glodek, A.; Zhou, L.; Ove
Nature 390, 364-370, 1997
                                                                                        R;Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; K
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mobilization protein mobD - Escherichia coli plasmid ColK
C;Species: Escherichia coli
C;Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change
C;Accession: S04795
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B45956
                                                                                                                                                                                                                                                                                                                                                                                                                       A;Genome: plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type:
A; Residues: 1-77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mol. Gen. Genet. 41/, 400 43/, ColE1 mobilization region A;Title: Characterization of the ColE1 mobilization region A;Reference number: JQ0389; MUID:89364735; PMID:2671664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R;Boyd, A.C.; Archer, J.A.K.; Sherratt, D.J. Mol. Gen. Genet. 217, 488-498, 1989
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A; Residues: 1-880 <MAC>
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C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 24-Sep-1999
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C;Superfamily: beta-glucosidase 1
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Best Local
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                                                                       Overbeek, R.;
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Pred. No. 7.8;
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Pred. No.
                                                                       Gocayne,
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67;
hyperthermophilic,
                                                                   J.D.; Weidman,
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                                                                   J.F.; McDonald,
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sulfate-reducing archaed
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                                   B.P.; Sykes,
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                                                                                                           K.A.;
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A:Experimental source: strain J138
C;Genetics:
A;Gene: pmp_15
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A;Title: Comparison of whole genome sequences of chlamydia pneumoniae J138. A;Reference number: A86491; MUID:20330349; PMID:10871362
A;Accession: F86548
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C;Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Nov-2001
C;Accession: AD0159
                                                                                                                                                                                                                                                                                                                     polymorphic outer membrane protein E family [imported] - Chlamydophila pneumoniae C;Species: Chlamydophila pneumoniae, Chlamydia pneumoniae C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 02-Mar-2001 C;Accession: F86548
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C; Superfamily:
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A; Residues: 1-837 < KUR>
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A; Residues: 1-736 < KLE>
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                                      Matches
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Best Local
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                                  Similarity 5; Conserv
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                                                     Score 32;
Pred. No. 1
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Pred. No. 1e+02;
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1.2e+02;
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                                                                   Length 938;
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A; MOLECULE 1796. .....
A; Residues: 1-112 <SIM>
A; Residues: 1-112 <SIM>
A; Cross-references: GB:AE003926; GB:AE003849; NID:g9105771; PIDN:AAF83677.1; GSPDB:GN001
A; Experimental source: strain 9a5c
R; Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; A
Briones, M.R.S.; Bueno, M.R.D.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H
as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.
submitted to GenBank, June 2000
A; Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohn
J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigi
Chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Marrins, F.
A; Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.;
F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A
A; Nunes, L.R.; Oliveira, M.A.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasak
A; Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silvei,
M.; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; 2
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A;Title: Genome sequences of Chlamydia trachomatis MoPn and Chlamydia pneumoniae AR39.

A;Reference number: A81500; MUID:20150255; PMID:10684935

A;Accession: E81593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein xF0867 [imported] - Xylella fastidiosa (strain 9a5c)
c;Specles: Xylella fastidiosa
c;Date: 18 Aug:2000 *sequence_revision 20-Aug-2000 *text_change 20-Aug-2000
C;Accession: H82752
R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Nature 406, 151-157, 2000
A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Reference number: A82515; MUID:20365717; PMID:10910347
A;Rote: for a complete list of authors see reference number A59328 below
A;Accession: H82752
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A;ResIdues: 1-938 <FRA>
A;Cross-references: GB:AE002190; GB:AE002161; NID:g7189209; PIDN:AAF38143.1; PID:g718921
A;Experimental source: strain AR39, HL cells
C;Genetics:
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                                                                A;Contents: annotation C;Genetics: A;Gene: XF0867
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A;Experimental source: strain CWL029
R;Read, T.D.; Brunham, R.C.; Shen, C.; Gill, S.R.; Heidelberg, J.F.; White, O.; Hickey,
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A; Residues: 1-938 <ARN>
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1.2e+02;
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164069
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Query Match

Score

31;

DB <u>ب</u>

Length 112;

hypothetical

protein HI0461 -

Haemophilus influenzae (strain Rd KW20)

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C;Accession: AH2698
R;Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.;
erage, G; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; N.; Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
H97480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            permease [imported] - Agrobacterium tumefaciens (strain C58, Dupont)
C;Species: Agrobacterium tumefaciens
C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 11-Jan-2002
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A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.;
Science 294, 2323-2328, 2001
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A; Gene: Atu0992
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A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-289 <KUR>
A;Cross-references: GB:AE008688; PIDN:AAL42006.1; PID:g17739380; GSPDB:GN00186
A;Experimental source: strain C58 (Dupont)
                                                                                                                                                                                                                                                                                                              A; Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58 A; Reference number: AB2577; PMID:11743193
                                                                                                                                                                                                                                                                                                                                                                A; Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kam
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A; Residues: 1-289 < KUR>
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                                                                                                                                            A; Map position: circular
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                                                                                        Query Match
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                                                                                                                                                                                                                                                                                                                                                                                        probable integral membrane protein NMA0732 [imported] - Neisseria meningitidis (strain C;Species: Neisseria meningitidis C;Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 02-Feb-2001 C;Accession: F81916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Science 287, 1809-1815, 2000
A;Authbors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; A;Title: Complete genome sequence of Neisseria meningitidis serogroup B A;Reference number: A81000; MUID:20175755; pMID:10710307
A;Accession: G81185
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C;Darcies: 18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change 29-Sep-1999
C;Accession: I64069
R;Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.; Kirkness, E.F.; Kerlavage, Gocayne, J.D.; Scott, J.; Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman, D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fuhrmann, J.L.; Geoghagen, N.S.M.
       A; Molecule type: DNA
A; Residues: 1-357 < PAR>
A; Cross-references: GB:
                                                                                                                                                           A;Reference number: A81775;
A;Accession: F81916
                                                                                                                                                                                      A; Title: Complete DNA sequence of a serogroup A strain of A; Reference number: A81775; MUID:20222556; PMID:10761919
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A; Residues: 1-357 <TET>
A; Cross-references: GB: AE002411;
A; Experimental source: serogroup
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A;Title: Whole-genome random sequencing and assembly of Haemophilus influenzae Rd.
A;Reference number: A64000; MUID:95350630; PMID:7542800
                                                                                                                        A;Status: preliminary
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A; Residues: 1-291 <TIGR>
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A;Accession: I64069
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Best Local
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5; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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           GB:AL162754;
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71.4%;
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GB:AL157959; NID:g7379424; PIDN:CAB84016.1; PID:g737945
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B, strain MC58
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Pred. No.
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Pred. No. 53;
1; Mismatches
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67;
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53;
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Mungall, K.; Quail,
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M.A.;
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Search completed: July 11, Job time: 4.51164 secs

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R;Chissoe, S.; Sansone, u.
submitted to the EMBL Data Library, December of C. elegans
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C;Date: 29-Oct-1999 #sequence_revision
C;Accession: T32652
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                                                                                                           A; Introns: 42/3; 104/3; 133/3; 164/3; 213/3; 276/3; 336/3
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                                                                                                                            A; Map position:
                                                                                                                                         A; Gene: CESP:F39C12.3
                                                                                                                                                     C; Genetics:
                                                                                                                                                                      A; Experimental source: strain
                                                                                                                                                                                     A;Cross-references:
                                                                                                                                                                                                 A; Residues: 1-427 <CHI>
                                                                                                                                                                                                              A; Molecule type: DNA
                                                                                                                                                                                                                            A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                         A; Accession: T32652
                                                                                                                                                                                                                                                        A; Description: The sequence A; Reference number: Z21206
                                                                                                                                                                                                                                                                                                                                                         hypothetical protein F39C12.3 - Caenorhabditis elegans
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Best Local
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230 WQNALTK 236
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5; Conserv
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ce: strain Bristol N2; clone F39C12
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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433.698 Million cell updates/sec
   SwissProt_40:*
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G2D1_HUMAN
Y461_HAEIN
FUS2_YEAST
 GREA_CHLPN
PM.14_CHLPN
UPPS_MYCLE
GSTB_BPT4
PARA_HUNAN
GLN4_PHAVU
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Pfam; PF00079; Serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN; 1.
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|                          | 34<br>35                                                                | 29                        | NN                                                     | 586<br>601                       |                  | FZOA_<br>YEO6_                         | _XENLA<br>_SCHPO   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 29deb5<br>013803           |                             |
|--------------------------|-------------------------------------------------------------------------|---------------------------|--------------------------------------------------------|----------------------------------|------------------|----------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|
|                          | 37<br>38                                                                | 299                       | 72.5                                                   | 639<br>639                       |                  | V70K_PLRVI<br>V70K_PLRVW<br>VATI_PYRAB | PYR'S              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | P1/519<br>P11622<br>Q9uxu2 | potato<br>potato<br>pyrocoo |
|                          | 40<br>40                                                                | 29<br>29                  | 88.8                                                   | 693<br>714                       |                  | TGM3_HUMAN<br>GREA_CHLMU               | CHL                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 29plu1                     |                             |
|                          | 42                                                                      | 29                        | י אַ נּי                                               | 787<br>1124                      |                  | PHY1_TOBAC                             | HOS L              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | P33530                     | schizosacch<br>nicotiana t  |
|                          | 444                                                                     | 28                        | 0 22                                                   | 2376                             |                  | YIM9_YEAST                             | ECO<br>ECO         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | P40468<br>P13660           | saccharomyc<br>escherichia  |
|                          |                                                                         |                           |                                                        |                                  |                  | ≱                                      | LIGN               | LIGNMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                             |
| RESULT<br>SPB7_H<br>ID S | JLT 1<br>_HUMAN<br>SPB7_HU                                              | MAN                       | ω                                                      | TANDARD;                         |                  | PRT                                    | ;;                 | 380 AA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                             |
| 3333                     | 15-JUN-2002<br>15-JUN-2002<br>15-JUN-2002                               | ·2002                     | (Rel.                                                  | 41, Crea<br>41, Last<br>41, Last | ~ C              | ed)<br>sequence<br>annotatic           | t ce               | update)<br>on update)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                             |
| G B                      | Megsin<br>SERPINE                                                       | (TP55                     | ) (Se                                                  |                                  |                  | ;                                      |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                             |
| 888                      | Homo sapie                                                              | sapiens<br>yota; M        | ens (Human); Metazoa; (                                | n).<br>Chordata                  | lata             | • ••                                   | ania               | Craniata; Vertebrata; Eu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Euteleostomi;              | tom1;                       |
|                          | NCBI_TaxID=9                                                            | XID=9                     | 606;                                                   |                                  | Š                | 3                                      | ,                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                             |
|                          | MEDLINE-97326116; PubMed-9182567; Tsujimoto M., Tsuruoka N., Ishida N., | =9732                     | 6116;                                                  | PubMed-<br>uoka N.               | .91E             | 2567<br>Shida                          | ; z                | , Kurihara T., Iwasa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sa F.,                     |                             |
|                          | Katayam<br>Katayam                                                      |                           | Nakao<br>Nakao                                         | 3 M Ya                           | mai<br>T         | chi i                                  | 7 . 2              | shino J., Haruya<br>Mizoquchi H.,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ma M.,<br>Yamaqu           | zĘ                          |
| 3                        | "Purifi                                                                 | catio                     | on, cDN                                                | A cloni                          | .ng              | and                                    | cha                | cterization of a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | new                        | 'n                          |
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|                          | MEDLINE<br>Miyata                                                       | -9837                     | 6492;<br>Jangaku                                       | PubMed-<br>M., Su                | d-9710<br>Suzuki | 0452;                                  | , Ina              | 1 R., Uragami K.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | , Sakai                    | H.,                         |
| RR                       |                                                                         | ingiun                    | Kurokawa K.;                                           | K.;<br>minant                    | gene,            | •                                      | SĎ                 | , is a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | upregula                   | ulated in                   |
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| 388                      | -i- TIS                                                                 | SSUE S                    | TISSUE SPECIFICITY: Predom. SIMILARITY: BELONGS TO THE | CITY: F                          | o ř              | Predominant                            | ninantly of SERPIN | y expressed in mesangial cells.<br>N FAMILY, OV-SERPIN SUBFAMILY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | angial<br>N SUBF           | cells.                      |
| 38                       |                                                                         |                           |                                                        | 10                               | }                |                                        | 7 :                | T+ +0 05000000 +h5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            | 3 :                         |
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| ត្តត                     | entities                                                                | s rec                     | uires a                                                | stateme<br>a licen               | se               | agree                                  | emen               | removed. Usage by an<br>int (See http://www.isb-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | S C                        | ib.ch/announce/             |
| 88                       | or send                                                                 | an e                      | send an email to license@isb-sib.cl                    | o licen                          | see              | isb-s                                  | sib.               | h) .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                             |
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                                                                                         CARBOHYD
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Pfam; PF00933; Glyco_hydro_3; 1.
Pfam; PF01915; Glyco_hydro_3_C;
PRINTS; PR00133; GLHYDRLASE3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; M22476; AAA34315.1; -. PIR; B45956; B45956.
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Machida M., Ohtsuki I., Fukui S., Yamashita I.;
"Nucleotide sequences of Saccharomycopsis fibuligera genes for
extracellular beta-glucosidases as expressed in Saccharomyces
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Saccharomycopsis fibuligera (Yeast).
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InterPro; IPR001764; GH_3N.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. Environ. Microbiol. 54:3147-3155(1988).
CATALYTIC ACTIVITY: Hydrolysis of terminal, non-
glucose residues with release of beta-D-glucose.
PATHWAY: Cellulose degradation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO FAMILY 3 OF GLYCOSYL HYDROLASES
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                                                                                                                                                                                                                Histidine biosynthesis; Transferase; Aminotransferase;
Pyridoxal phosphate; Complete proteome.
BINDING 220 PYRIDOXAL PHOSPHATE (BY SIMILARITY).
SEQUENCE 369 AA; 40710 MW; DCB23E0507165570 CRC64;
                                                                                                                                                                                                                                                                                                                                 InterPro; IPR004839; Aminotransf1/2.
InterPro; IPR001917; NHtransf_2.
Pfam; PF00155; aminotran_1_2; 1.
TIGREAMS; TIGR01141; hisC; 1.
PROSITE; PS00599; AA_TRANSFER_CLASS_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            use by non-profit institutions as lon-
modified and this statement is not remove
entitles requires a license agreement (So
or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mesorhizobium loti.";

DNA Res. 7:331-338(2000).

1- CATALYTIC ACTIVITY: L-histidinol-phosphate + 2-oxoglutarate = 3-

(imidazol-4-yl)-2-oxopropyl phosphate + L-glutamate.

1- COFACTOR: Pyridoxal phosphate (By similarity).

1- PATHWAY: Histidine biosynthesis; seventh step.

1- SIMILARITY: BELONGS TO CLASS-II OF PYRIDOXAL-PHOSPHATE-DEPENDENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kaneko T., Nakamura Y., Sato S., Asamizu E., Kato T., Sasa Watanabe A., Idesawa K., Ishikawa A., Kawashima K., Kimura Kishida Y., Kiyokawa C., Kohara M., Matsumoto M., Matsuno Mochizuki Y., Nakayama S., Nakazaki N., Shimpo S., Sugimot Takeuchi C., Yamada M., Tabata S.;
"Complete genome structure of the nitrogen-fixing symbioti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-JUN-2002 (Rel. 41, Created)
15-JUN-2002 (Rel. 41, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Histidinol-phosphate aminotransferase
acetol-phosphate transaminase 3).
HISC3 OR MIR5786.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=MAFF303099;
MEDLINE=21082930;
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NCBI_TaxID=381;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rhizobium loti (Mesorhizobium loti).
Bacteria; Proteobacteria; alpha subdivision;
Phyllobacteriaceae; Mesorhizobium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AP003007; BAB52172.1;
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315 WQSAFAR
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ra Y., Sato S., Asamizu
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ima K., Kimura
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                                                                                                                                                                 Length 369;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Intracellular association with macrophages:";
MOI. Microbiol. 8:311-324(1993).
-I- FUNCTION: INVOLVED IN THE EXPORT AND ASSEMBLY OF PSAA (PH 6)
FIMBRIAL SUBUNITS ACROSS THE OUTER MEMBRANE.
-I- SUBCELLULAR LOCATION: Integral membrane protein. Outer membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PSAC_YERPE STANDARD; PRT; 837 AA. p31527; Q56980; 01-JUL-1993 (Rel. 26, Created) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                         EMBL; M86713; AAA27664.1; ALT_INIT PIR; S27749; S27749. PIR; S32928; S32928.
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Submitted (MAY-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yersinia pestis.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                                                     the European Bioinformatics Institute.
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Lindler L.E., Tall B.D.;
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SIMILARITY: BELONGS TO THE FIMBRIAL EXPORT USHER FAMILY.
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AJ414147; CAC90135.1; -.
Similarity
5; Conserv
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PS01151; FIMBRIAL_USHER;
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Score 32; DB Pred. No. 40; 1; Mismatches
                                                                                                           POTENTIAL.

OUTER MEMBRANE USHER PROTEIN PSAC.

ANISET -> EISVKP (IN REF. 1 AND 3)

OFRONGGYRRSOYIOLYPG -> SFVKMYDTGVH

V (IN REF. 3).
                                                    R -> A (IN RÉF. 1).
E -> K (IN RÉF. 1).
ETGQLLVQW -> KQGSYWCM (IN D901C236C012D82A CRC64;
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           40;
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PM15_CHLPN
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OS Chlamy
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Best Local
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Q9Z883;
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Q56983;
                        pmp15 OR CPN0466 OR CP0286.
Chlamydia pneumoniae (Chlamydophila pneumoniae)
Bacteria; Chlamydiales; Chlamydiaceae; Chlamydo,
NCBI_TaxID=83558;
                                                                                                                           16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Probable outer membrane protein pmp15 precu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00577; Usher; 2.
PROSITE; PS01151; FIMBRIAL_USHER; 1.
PROSITE; PS01151; FIMBRIAL_USHER; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-96294755; PubMed-8698470;
Yang Y., Merriam J.J., Mueller J., Isberg R.R.;
"The psa locus is responsible for thermoinducible binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration
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Bacteria; Proteobacteria; ga
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15-JUN-2002 (Rel. 41, Last sequence up. 15-JUN-2002 (Rel. 41, Last annotation)
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837 AA;
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Pred. No. 40;
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precursor
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Best Loc
Matches
G2D1_HUMAN STANDARD; PRT; 959 AA.

Q9UHL9; O95444; Q9UHK8; Q9UI91; Q8WVC4;

15-JUN-2002 (Rel. 41, Created)

15-JUN-2002 (Rel. 41, Last sequence update)

15-JUN-2002 (Rel. 41, Last sequence update)

General transcription factor II-I repeat domain-containing protein (GTF2I repeat domain containing protein 1) (Muscle TFII-I repeat domain-containing protein 1) (General transcription factor III) (muscle TFII-I repeat domain-containing protein protein protein factor III) (Muscle TFII-I repeat domain-containing protein protein)
                                                                                                                                           HUMAN
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MEDLINE-20150255; PubMed-10684935;

MEDLINE-20150255; PubMed-10684935;

Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg Read T.D., Hickey E.K., Peterson J., Utterback T., Berry White O., Hickey E.K., Kotonay J., WcClarty G., Linher K., Weidman J., Khouri H., Craven B., Bowman C., Linher K., Weidman J., Khouri H., Craven B., Bowman C., Linher K., Weidman J., Kotonay J., McClarty G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shirai M., Hirakawa H., Kimoto M., Tabuchi M., Kishi F., Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.; "Comparison of whole genome sequences of Chlamydia pneumofrom Japan and CWLO29 from USA."; Nucleic Acids Res. 28:2311-2314(2000).
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                                                                                                                                                                                                                                                                                                                        SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e European Bloinformatics Institute. There are no restrictions on its e by non-profit institutions as long as its content is in no way diffied and this statement is not removed. Usage by and for commercial titles requires a license agreement (See http://www.isb-sib.ch/announce/send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                               ocal
                                                                                                                                                                                                                                                                                            Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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AE002190;
AP002546;
                                                                                                                                                                                                                                                                                                                                                                     membrane;
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938 /
                                                                                                                                                                                                                                                              Conservative
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; AAF38143.1;
; BAA98672.1;
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                                                                                                                                                                                                                                                                                                                     Signal; Multigene family; Complete proteome.

17
POTENTIAL.
1938
PRODABLE OUTER MEMBRANE PROTEIN
AA; 102194 MW; A904AAB05B567455 CRC64;
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Y K., Bass S.,
Dodson R.,
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                  (Slow
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Tussie-Luna M.I., Bayarsaihan D., Ruddle F.H., Roy A.L.;

"Repression of TFII-I-dependent transcription by nuclear exclusion.";

Proc. Natl. Acad. Sci. U.S.A. 98:7789(7794(2001).

-!- FUNCTION: May be a transcription regulator involved in cell-cycle progression and skeletal muscle differentiation. May repress GTF2I transcriptional functions, by preventing its nuclear residency, or by inhibiting its transcriptional activation. May contribute to slow-twitch fiber type specificity during myogenesis and in regenerating muscles. Binds troponin I slow-muscle fiber enhancer (USE B1). Binds specifically and with high affinity to the EFG sequences derived from the early enhancer of HOXC8 (By similarity).
   + +
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"Identification of GTF2IRD1, a putative the Williams-Beuren syndrome deletion at 
Cytogenet. Cell Genet. 86:296-304(1999).
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MEDLINE-20044629; PubMed-10575229;
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Tassabehji M., Carette M., Wilmot
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 1),
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Metcalfe K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rissum=Uterus;
SUBCELLULAR
ALTERNATIVE
                                                             SUBUNIT: In C-terminus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         scription factor involved in skeletal muscle in patients with Williams syndrome."; Hum. Genet. 7:737-747(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (DEC-2001)
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                                                                                             Interacts with the
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                             LOCATION:
PRODUCTS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18:6641-6652(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PubMed-11438732;
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Nuclear.
2 isofor
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ID Y461_H
ID Y461_H
AC Q57144
AC Q57147
DT Q1-NOV
DT 15-JUN
DE Prote1
GN H10451
GN H26mop
OC Baemop
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Matches 5
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CONFLICT
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SEQUENCE
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01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
Protein HI0461.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                              VARIANT
                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Transcription regulation; Developmental protein; DNA-binding; Nuclear protein; Repeat; Alternative splicing; Polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF02946; GTF21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genew; HGNC:4661;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
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                       Haemophilus influenzae.
Bacteria; Proteobacteria;
                                                                                                                                                                                                                                                                                                                                                                           VARSPLIC
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                                                                                                                             Y461_HAEIN
                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                       REPEAT
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                                                   110461.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       heart, fibroblast, bone and fetal tissues. Expressed at lower levels in all other tissues tested.

DEVELOPMENTAL STAGE: Highly expressed in developing and regenerating muscles, at the time of myofiber diversification. DOMAIN: The N-terminal half may have an activating activity. DISEASE: Haploinsufficiency of GTF2IRD1 may be the cause of certain cardiovascular and musculo-skeletal abnormalities observed in Williams-Beuren syndrome (WBS), a rare developmental disorder. It is a contiguous gene deletion syndrome involving genes from chromosome band 7g11.23.

SIMILARITY: BELONGS TO THE TFII-I FAMILY.

SIMILARITY: CONTAINS 5 GTF2I-LIKE REPEATS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; AF118270; AAD14687.2;
AF104923; AAD27668.1;
.; AF151354; AAF279786.1;
.; AF156489; AAF17358.1;
.; AF089107; AAF21796.1;
.; BC018136; AAH18136.1;
.; BC018136; AAH18136.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE SPECIFICITY: Highly expressed in adult skeletal muscle,
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5; Conserv
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128
351
565
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378
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GTF21 2.
GTF21 3.
GTF21 4.
GTF21 5.
UCCLEAR LOCALIZATION SIGNAL (FSER-RICH)
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                                                                                                                                                                                                                                           Score 32; DB Pred. No. 47; 1; Mismatches
                                                                                                                                                                                                                                                                                                       MISSING (IN ISOFORM 2).

W -> V (IN DBSNP:2301895).

/FTId=VAR_013446.

MISSING: CYTOPLASMIC LOCALIZATION.
G -> S (IN REF. 1 AND 2).

R -> O (IN REF. 5).
                                                                                                                                                                                                                                                                                           -> S (IN REF. 1 AN -> Q (IN REF. 5). 7DA3097879701540
                       subdivision; Pasteurellaceae;
                                                                                                                             291
                                                                          update)
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47;
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RESULT 9
FUS2_YEAST
ID FUS2_Y
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DT Q1-NOV
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SEQUENCE FROM N.A.
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STRAIN-Ed / KW20 / ATCC 51907;
MEDLINE-95350630; PubMed=75428
Fleischmann R.D., Adams M.D.,
Fleischmann R.D., Tom
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                                                                                                                                                                                                                                                                                                                                                                   Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Saccharomyces.
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Q05670; Q05023;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence up
15-JUN-2002 (Rel. 41, Last annotation
Nuclear fusion protein FUS2.
FUS2 OR YMR232W OR YM9959:14.
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Electrophoresis 21:411-429(2000).
-1- SIMILARITY: TO E.COLI YBJX AND WEAK,
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             STRAIN-S288c / AB972;
Skelton J., Churcher C.1
Submitted (JUN-1995) to
                                                                                                                                     Elion E.A., Trueheart J., Fink G.R.; "Fus2 localizes near the site of cell fusion and cell fusion and nuclear alignment during zygote f J. Cell Biol. 130:1283-1296(1995).
                                                                                                                                                                                                                   MEDLINE-96032260; PubMed-7559752; Elion E.A., Trueheart J., Fink G.
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30-MAY-2000 (Rel. 39, Last
16-OCT-2001 (Rel. 40, Last
Transcription elongation f.
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                                                                                                                                                                                                                                                                                                                                                                    MEDIINE-99206606; PubMed=10192388; Kalman S., Mitchell W., Marathe R., Lammel C., Fa Olinger L., Grimwood J., Davis R.W., Stephens R.S "Comparative genomes of Chlamydia pneumoniae and Nat. Genet. 21:385-389(1999).
                                                                                    MEDLINE=20150255; PubMed=10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg
White O., Hickey E.K., Peterson J., Utterback T., Berry
Linher K., Weidman J., Khouri H., Craven B., Bowman C.,
Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G.,
Eisen J., Fraser C.M.,
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28:1397-1406(2000)
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185
203
546
677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79036 MW;
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71.4%;
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Last sequence
Last annotation
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L -> R (IN REF. 1).

F -> L (IN REF. 1).

MISSING (IN REF. 1).

HDTIECILLNYIKVFLKYLEIIAGGKKYLQKDLENMSLNDS

IATGQIKNLDILQCYSKSRYMTKRMYRKDWFFFGDFSGSRV
VRKLFEL -> PRYYRMYLVELYQSLLKIFGNHCWWKKIPA
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Pred. No.
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(Transcript
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722
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                                                          MoPn
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                                                          and Chlamydia
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                                                                                                                                                                                                                                                                                                                                                                                                       trachomatis.";
                                                                                                                    J.F.,
K., Bass
Dodson R.
Salzberg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL
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RESULT 11
PM14_CHLPN
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A Shirai M., Hirakawa H., Kimoto M., Tabuchi M., Kishi F., Ouchi K.,
A Shirai M., Hirakawa H., Kimoto M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
A Nucleic Acids Res. 28:2311-2314 (2000).

LOCKING TANA FOR THE PROPERTY OF TRAPPING A CERTAIN FRACTION OF ELONGATION AND FROM THE PROPERTY OF TRAPPING A CERTAIN FRACTION OF CLEAVAGE FACTORS SUCH AS GREA OR GREB ALLOWS THE RESUMPTION OF ELONGATION FROM THE NEW 3'TERMINUS. GREA RELEASES SEQUENCES OF TELONGATION FROM THE NEW 3'TERMINUS. GREA RELEASES SEQUENCES OF TO 3 NUCLEOTIDES (BY SIMILARITY).

C -1- SIMILARITY: BELONGS TO THE GREA/GREB FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                     PM14_CHLPN S
Q9Z895; Q9RB63;
16-OCT-2001 (Rel
16-OCT-2001 (Rel
16-OCT-2001 (Rel
MEDLINE-99206606; PubMed-10192388; Ralman S., Mitchell W., Marathe R., I Olinger L., Grimwood J., Davis R.W., "Comparative genomes of Chlamydia pna Nat. Genet. 21:385-389(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [3]
SEQUENCE FRO
STRAIN-J138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
SEQUENCE
                                                                                                                                         Chlamydia pneumoniae (Cl
Bacteria; Chlamydiales;
                                                                                                                                                                                                     16-OCT-2001 (Rel. 40, Creatsed)
16-OCT-2001 (Rel. 40, Last sequence up
16-OCT-2001 (Rel. 40, Last annotation
Probable outer membrane protein pmp14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AE001656;
EMBL; AE002164;
EMBL; AP002547;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/an
                                                                               STRAIN-CWL029
                                                                                                                          NCBI_TaxID=83558;
                                                                                                                                                                         PMP14 OR CPN0454 OR CP0298.
                                                                                                                                                                                          protein 14)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00829; GREAB_1; PROSITE; PS00830; GREAB_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF03449; GreA_GreB_N; ProDom; PD004918; GreA_GreB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send
                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Transcription
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=20330349; PubMed=10871362;
                                                                                                                                                                                                                                                                                                                                                                   250
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                                                                                                                                                                                                                                                                                                                                                                                                                            6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib:ch).
                                                                                                                                                                                                                                                                                                                                                                                     WQSAFTK
                                                                                                                                                                                                                                                                                                                                                                   WOSAKTK
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606
722 l
                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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; AAF37901.1; -.
; BAA98948.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                   256
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722
644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82642 MW;
                                                                                                                                                         (Chlamydophila
                                                                                                                                                                                                                                                                                                                                                                                                                                             77.5%;
85.7%;
                                                                                                                                       nıamydophila pneumoniae).
Chlamydiaceae; Chlamydop
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Pred. No.
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GREA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COILED COIL (POTENTIAL). E280EDB124D5E8CF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                pneumoniae and
                                Lammel C., Far, Stephens R.S.
                                                                                                                                                                                                                                       update)
                                                                                                                                                                                                                                                                                     978
                                                                                                                                                                                                       update)
precursor (Polymorphic membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                             56;
                                                                                                                                          Chlamydophila
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                                             Fan J.,
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                trachomatis.";
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UPPS_MYCLE
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Best Local S
Matches 5
                                                                                                                                                                                                                                                                                                                                                       UPPS_MYCLE STANDARD; PRT; 296 AA.
P38119;
01-OCT-1994 (Rel. 30, Created)
01-OCT-2994 (Rel. 30, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Undecaprenyl pyrophosphate synthetase (EC 2.5.1.31) (UPP synthetase)
(D1-trans-poly-cis-decaprenylcistransferase) (Undecaprenyl diphosphate)
upps OR ML0634 OR B1937_F2_65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=20150255; PubMed=10684935;
Read T.D., Brunham R.C., Shen C., Gill S.R., Heidelberg
White O., Hickey E.K., Peterson J., Utterback T., Berry
Linher K., Weidman J., Khouri H., Craven B., Bowman C.,
Gwinn M., Nelson W., DeBoy R., Kolonay J., McClarty G.,
Elsen J., Fraser C.M.;
General J., Fraser C.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shirai M., Hirakawa H., Kimoto M., Tabuchi M., Kishi F., Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.; "Comparison of whole genome sequences of Chlamydia pneumo from Japan and CWL029 from USA."; Nucleic Acids Res. 28:2311-2314(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [2]
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
Mycobacterium leprae.

Bacteria; Actinobacteria; Actinobacteria (class); Actinobacteridae; Actinomycetales; Corynebacterineae; Mycobacteriaceae; Mycobacterium NCBI_TaxID-1769;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PHCI-2DPAGE; Q9Z895; -. TIGR; CP0298; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AE001629; AAD18596.1;
EMBL; AE002191; AAF38155.1;
EMBL; AP002546; BAA98661.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Genome sequences of Chlamydia trachomatis pneumoniae AR39.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE-20330349;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR003368; Chlamydia_PMPInterPro; IPR003357; OMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS TO THE PMP OUTER MEMBRANE PROTEIN FAMILY.
                                                                                                                                                                                                                                                           854 WQSKFTE 860
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                                                                                                                                                                                                                                                                                                                 Similarity
5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FROM
                                                                                                                                                                                                                                                                                      WQSAFTK 7
                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                               77.58;
71.48;
                                                                                                                                                                                                                                                                                                                 1:
                                                                                                                                                                                                                                                                                                                               Score 31;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.

PROBABLE OUTER MEMBRANE PROTEIN PMP14.

N -> D (IN REF. 1).

W; 6EEE142999D3019 CRC64;
                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                              DB
77;
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., Bowman C., Dodson R.
McClarty G., Salzberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MoPn and Chlamydia
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                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                           Length 978
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В
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Best Local S
Matches 4
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Cole S.T., Eiglmeier K., Parkhill J., James K.D., Thomson N.R., Wheeler P.R., Honore N., Garnier T., Churcher C., Harris D., Mungall K., Basham D., Brown D., Chillingworth T., Connor R., Davies R.M., Devlin K., Duthoy S., Feltwell T., Fraser A., Hamiln N., Holroyd S., Hornsby T., Jagels K., Lacroix C., Maclean J., Moule S., Murphy L., Oliver K., Quall M.A., Rajandream M.A., Rutherford K.M., Rutter S., Seeger K., Simon S., Simmonds M., Skelton J., Squares S., Stevens K., Taylor K., Whitehead S., Woodward J.R., Barrell B.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
SEQUENCE FROM N.A.
MEDLINE-86067181; Pubm
Tomaschewski J., Gram
"T4-induced alpha- and
                                                                                                                                P04547; Q38417;
13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
13-JUN-2002 (Rel. 41, Last annotation update)
DNA beta-glucosyltransferase (EC 2.4.1.27) (BGT).
                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR001441; UPP_synth.
Pfam; PF01255; UPP_synthetase; 1.
ProDom; PD003461; UPP_synth; 1.
TIGREAMS; TIGR00055; uppS; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U00016; AAA17169.1; -.
EMBL; AL583919; CAC30142.1;
Leproma; ML0634; -.
                                                                T4-like viruses.
NCBI_TaxID=10665;
                                                                                            Bacteriophage T4.
Viruses; dsDNA viruses,
                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS01066; UPP_SYNTHETASE; 1. Transferase; Cell division; Cell wall;
                                                                                                                      BGT OR BETA-GT
                                                                                                                                                                                                      _BPT4
                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                         Similarity 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                           proteome
                                                                                                                                                                                                                                                                      WQAAYTE
                                                                                                                                                                                                                                                                                                WQSAFTK 7
                                                                                                                                                                                                                                                                                                                                                                                296 AA;
                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Robison
                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                      263
 PubMed=2999696;
Gram H., Crabb J.W., Rueger W.;
.- and beta-glucosyltransferase:
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                                                                                            stage; Caudovirales; Myoviridae;
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  cloning
  of the genes
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modified and this statement
entities requires a license
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J. Mol. Biol. 292:717-730(1999)
-i- FUNCTION: CATALYZES THE TRA
                                                                                                                                                                                                                                                                                                                                                                                                                                             glucosyltransferase in the presence and uridine diphosphoglucose.";
EMBO J. 13:3413-3422(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-87231080; PubMed=3295783;
Lamm N., Tomaschewski J., Rueger W.;
"Nucleotide sequence of the deoxycytidylate
bacteriophage T4 (942) and the homology of i
thymidylate synthase of E. coli.";
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Mesyanzhinov V., Ruger W., Stidham T.,
"Bacteriophage T4 genome analysis.";
Submitted (JUL-2000) to the EMBL/GenBar
                                                                                                                                                                                                                                                                                                                                                                                             Morera
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-94341252;
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                                                                                                                                send an email to license@isb-sib.ch).
                                                                                                                                                                              s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                             CATALYTIC ACTIVITY: Transfers a beta-D-glucosyl reglucose to an hydroxymethylcytosine residue in DNA PATHWAY: INVOLVED IN THE DNA MODIFICATION PROCESS THE PHAGE GENOME AGAINST ITS OWN NUCLEASES AND THE RESTRICTION ENDONUCLEASE SYSTEM.
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                         A00576; XUBPB4
1BGT; 30-SEP-94
                                                   AF158101; AAD42545.1; M22767; AAA88469.1; - M69268; AAA32544.1; - Y00148; CAA68343.1; -
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30-SEP-94.
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Res. 13:7551-7568(1985).
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I., Thomas E
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15-JUN-2002 (Rel. 4
15-JUN-2002 (Rel. 4
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PDB; 1QKJ; 28-JUL-99.
PDB; 1C3J; 09-AUG-99.
Transferase; Glycosylt
CONFLICT 85
                                                                "Protease-activated receptors 1 and plateLets by thrombin.;
J. Clin. Invest. 103:879-887(1999).
                                                                                                                                                                                                                        Proc.
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                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-98389762; PubMed-9722561; Kahn M.L., Hammes S.R., Botka C., Coughlin S.R.; Kahn M.L., Hammes S.R., Botka C., Coughlin S.R.; Teacher and chromosomal localization protease-activated receptor gene family."; J. Biol. Chem. 273:23290-23296(1998).
                                                                                                             Kahn M.L., Nakanishi-Matsui M., Coughlin S.R.;
                                                                                                                                                                                                                                             Xu W.-F., Andersen H., Whitmore T.E., F
Ching A., Gilbert T., Davie E.W., Foste
"Cloning and characterization of human
                                                                                                                                   MEDLINE=99178892;
                                                                                                                                                FUNCTION
                                                                                                                                                                     Submitted
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Rieder M.J.,
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Mammalia; Eutheria;
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     role in platelets activation.

SUBCELLULAR LOCATION: Integral membrane protein
TISSUE SPECIFICITY: Widely expressed, with high
TISSUE SPECIFICITY: Widely expressed, with high
                                                      FUNCTION: Receptor for activated thrombin proteins that stimulate phosphoinositide |
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-2002 (Rel. 41, Last sequence update)
-2002 (Rel. 41, Last annotation update)
-ase activated receptor 4 precursor (PAR-4) (Thrombin receptor-
) (Coagulation factor II receptor-like 3).
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Catarrhini; Hominidae
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RESULT 15
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CONFLICT
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PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Signal;
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Pfam; PF00001; 7tm_1; 1.
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BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
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4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
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2 (POTENTIAL
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CLEAVAGE (BY THROMBIN OR TRYPSIN) (BY
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EXTRACELLULAR (POTENTIAL).
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PROTEINASE ACTIVATED RECEPTOR 4.
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Best Local
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Phaseolus vulgaris (Kidney bean) (French bean).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;

eurosids I; Fabales; Fabaceae; Papillonoideae; Phaseoleae; Phaseolus.

NCBI_TaxID=3885;
                                                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   into isolated chloroplasts.",
Plant Mol. Biol. 11:191-202(1988).
Plant Mol. Biol. 11:191-202(1988).
Plant Mol. Biol. 11:191-202(1988).
PLANT MOLLEAR GENE LIGHT-MODULATED CHLOROPLAST ENZYME, ENCODED BY A NUCLEAR GENE AND EXPRESSED PRIMARILY IN LEAVES, IS RESPONSIBLE IN THE REASSIMILATION OF THE AMMONIA GENERATED BY PHOTORESPIRATION OF THE AMMONIA GENERATED BY PHOTORESPIRATION.
                                                                                                                                                                                                                            Nitrogen fixation;
Transit peptide.
TRANSIT 1
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                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L-PHOSPHINGITATION (1811).
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-1- SUBCELLULAR LOCATION: Chloroplast.
-1- MISCELLANEOUS: THERE ARE AT LEAST FOUR ISOZYMES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "The chloroplast-located glutamine synthetase of Phaseolus vulgaris L.: nucleotide sequence, expression in different organs and uptake
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=cv. Tendergreen; TISSUE=Leaf; Lightfoot D.A., Green N.K., Cullimore J.V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUN-2002 (Rel. 41, Last annotation update) Glutamine synthetase leaf isozyme, chloroplast precursor (EC
                                                                                                                                                                                               SEQUENCE
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InterPro; IPR001637; GlnA_adeny
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47246 MW;
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GLUTAMINE SYNTHETASE LEAF ISOZYME; 0CA55624B1118AF8 CRC64;
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O920]5 rattus norv
O9ree9 bradyrhizob
O94882 drosophila
O9luyl arabidopsis
O9kfbl bacillus ha
O43022 schlzosacch
O52995 escherichia
O92rf9 rhizobium m
O98b00 rhizobium m
O98b00 rhizobium l
O9uqy0 aspergillus
O9urf2 aspergillus
O9urf0 arabidopsis
O9ffv0 arabidopsis
O9frw8 drosophila
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01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
4631416M05Rik protein (Megsin).
SERPINB7 OR 4631416M05RIK.
Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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| 241                | 228                | 226                | 165                | 163                | 156    | 128                | 1145               | 1108    | 729    | 666                | 590                | 570               | 558                | 554    | 514    | 451    | 427                | 357                | 357                | 289    | 275                | 243               | 187    | 112          | 1080   | 1072              | 750    | 736                |
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| 098вр8             | Q9XLG8             | Q9ZB14             | 005500             | Q8X1D5             | Q9F1Z7 | Q97IM8             | 004146             | Q8Y6V7  | Q9EY54 | 09A1Q7             | Q92x68             | Q9U4U9            | Q978S9             | Q9HLE0 | Q9V052 | Q95x63 | 044582             | Q9JVR3             | Q9K0N5             | Q8UGP3 | Q9XHV1             | Q8ZP26            | Q9LJX6 | Q9PF11       | Q9Y167 | Q9VKV1            | Q8XJ85 | 028661             |
| Q98bp8 rhizobium l | Q9xlg8 reticuliter | Q9zb14 leuconostoc | 005500 bacillus su | Q8xld5 ustilago ma | Ъ      | Q97im8 clostridium | 004146 acetabulari | 7 liste |        | Q9a1q7 streptococc | Q92x68 rhizobium m | Q9u4u9 haematobia | Q978s9 thermoplasm |        | N      |        | 044582 caenorhabdi | Q9jvr3 neisseria m | Q9k0n5 neisseria m |        | Q9xhv1 oryza sativ | Q8zp26 salmonella |        | $\mathbf{L}$ | -      | Q9vkvl drosophila | 5      | O28661 archaeoglob |

## ALIGNMENTS

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| OX NCBI_TaxID=10090; RN [1] RP SEQUENCE FROM N.A. RP SEQUENCE FROM N.A. RP SEQUENCE FROM N.A. RR STRAIN=21085660; PubMed=11217851; RX MEDLINE=21085660; PubMed=11217851; RA ALZAWA K., Ishingawa A., Shibata K., Yoshino M., Itoh M., Ishii Y., RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Alzawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I., RA Kadota K., Matsud H.A., Ashburner M., Batalov S., Casavant T., RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H., RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J., RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T., RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F., RA Blake J., Bult C., Fletcher C., Fujita M., Gariboldi M., RA Blake J., Bult C., Fletcher C., Fujita M., Gariboldi M., RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., RA Gustincich S., Hill D., Hofmann M., Hazzarelli J., Mombaerts P., RA Gustincich S., Hill D., Mashima J., Mazzarelli J., Mombaerts P., RA Sasaki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., RA Mynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Rohtsuki S., RA Hayashizaki Y., RA Hayashizaki Y., RA Hayashizaki Y., RE Matura 409:685-690(2001). | SEQUENCE FROM N.A.                                                   | RP |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,    | RA |
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| NCBL_TaxID=10090; [1] SEQUENCE FROM N.A. SEQUENCE FROM N.A. STRAIN-C57BL/6J; TISSUB-SKIN; MEDLINE-21085660; PubMed-11217851; MEDLINE-21085660; PubMed-11217851; Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Kawai J., Shinagawa A., Fukunishi Y., Konno H., Adachi J., Fukuda Arakawa T., Hara A., Fukunishi Y., Konsawa H., Kondo S., Yamanaka Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | adota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,       | RA |
| NCB_TaxID=10090; [1] SEQUENCE FROM N.A. STRAIN-C57BL/6J; TISSUE-SKIN; MEDLINE-21085660; Pubmed-11217851; Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Kawai J., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda Arakawa T., Hara A., Fukunishi Y., Konno H., Kondo S., Yamanaka Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | aito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,    | RA |
| NCBL_TaxID=10090; [1] SEQUENCE FROM N.A. STRAIN-C57BL/6J; TISSUE-SKIN; MEDLINE-21085660; PubMed-11217851; MEDLINE-21085660; PubMed-11217851; Kawai J., Shinagawa A., Shibatca K., Yoshino M., Itoh M., Ishii Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | izawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,    | RA |
| NCBI_TaxID=10090; [1] SEQUENCE FROM N.A. STRAIN-C57BL/6J; TISSUB-SKIN; MEDLINE-21085660; PubMed-11217851; Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | rakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,    | RA |
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Hypothetical 33,2 kba protein
Bradyrhizobium japonicum.
Bacteria; Proteobacteria; alpha subdivision; Rhiz
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SEQUENCE
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Nangaku M., Miyata T., Suzuki D., Umezono T., Hashimc Ragi M., Nagano N., Inagi R., Kurokawa K.;
"Cloning of rodent megsin revealed its up-regulation mesangioproliferative nephritis.";
Kidney Int. 60:641-652(2001).
EMBL; AK014524; BAB29410.1; -.
EMBL; AK105288; AAL16768.1; -.
EMBL; AF105328; AAL16768.1; -.
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Nangaku M., Miyata T., Suzuki D., Umezo
Yagi M., Nagano N., Inagi R., Kurokawa
"Cloning of rodent megsin revealed its
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Mammalia; Eutheria;
NCBI_TaxID=10116;
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SMART; SM00093; SERPIN; 1.

PROSITE; PS00284; SERPIN; UNKNOWN_1.

PROSITE; PS00284; A3050 MW; C9240272BCFB9CF4 CRC64;
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Rodentia;
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Pred. No. 21;
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Pred. No.
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Sciurognathi; Muridae;
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                                              Pfam; PF01843; DIL; 1.

Pfam; PF00612; IQ; 6.

Pfam; PF00063; myosin_head; 1.

PRINTS; PR00193; MYOSINHEAVY.

ProDom; PD0003576; MYOSIn_head; 1

ProDom; PD003376; DIL; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q94882; 001381;
01-FEB-1997 (TrEMBLrel. 02, CI
01-JAN-1998 (TrEMBLrel. 05, LE
01-JUN-2002 (TrEMBLrel. 21, LE
DILUTE Class UNCONVENTIONAL my
DIDUM OR CG2146.
                                                                                                                                                                                                                                    Thesis (1997), University EMBL; Y08160; CAA69352.1; HSSP; P10587; 1BR2.
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Minder A.C., de Rudder K.E.E., Narberhaus F., Fischer H.
Hennecke H., Geiger O.;
"Phosphatidylcholine levels in Bradyrhizobium japonicum critical for an efficient symbiosis with the soybean hos Mol. Microbiol. 39:1186-1198(2001).
EMBL; Y09633; CAB60667.1; -.
             SMART; SM00015; IQ; 6.
SMART; SM00242; MYSC;
                                                                                                                                                                FlyBase; FBgn0015933; didum.
InterPro; IPR002710; DIL.
InterPro; IPR00048; IQ_regi.
InterPro; IPR001609; myosin_
                                                                                                                                                                                                                                                                                                                                                                                                            Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
PROSITE; PS50096; IQ;
                                                                                                                                                                                                                                                                                                                                                                           Pterygota; Neoptera; Endopterygota; Diptera; Brachycera; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q94882
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minder A.C., Narberhaus F., Babst M., Hennecke H., Fiscl "The dnaKJ operon belongs to the sigm32-dependent class genes in Bradyrhizobium japonicum.";
genes in Genet. 254:195-206(1997).
                                                                                                                                                                                                                                                                                                   MacIver
                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=7227;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minder A.C., Fischer H.M., Hennecke H., Na "Role of HrcA and CIRCE in the heat shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=20082837; PubMed=10613857;
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; IQ_region.
; myosin_head.
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71.4%;
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myosin.
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Pred. No.
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45;
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regulatory network
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class of heat shock
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Matches 5
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InterPro; IPR001993; Micoch_carrier.
InterPro; IPR001441; UPP_synth.
Pfam; PF01255; UPP_synthetase; 1.
ProDom; PD003461; UPP_synth; 1.
TICREAMS; TIGR00055; UPPS; 1.
PROSITE; PS00215; MITOCH_CARRIER; UNKN
PROSITE; PS01066; UPP_SYNTHETASE; UNKN
                                                                                            OSKFB1 PRELIMINARY;
OSKFB1;
O1-CCT-2000 (TrEMBLrel. 1
O1-CCT-2000 (TrEMBLrel. 1
O1-JUN-2001 (TrEMBLrel. 1
Chromate transporter.
CHA OR BH0574.
Bacillus halodurans.
Bacillaceae; Bacillus.
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01-CCT-2000 (TrEMBLrel. 15, Created)
01-CCT-2000 (TrEMBLrel. 15, Last sequence update)
01-CCT-2000 (TrEMBLrel. 21, Last annotation update)
01-UUN-2002 (TrEMBLrel. 21, Last annotation update)
Cis-prenyltransferase homolog-like, undecaprenyl phosphate
synthetase-like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arabidopsis thaliana (Mouse-ear cress).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosideurosids II; Brassicales; Brassicaceae; Arabidoneio
SEQUENCE FROM N.A.
STRAIN-C-125 / JCM 9153;
MEDLINE-20512582; PubMed-11058132;
Takami H., Nakasone K., Takaki Y.,
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MEDLINE-20181125;
Sato S., Nakamura
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CALA
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                                                                               NCBI_TaxID-86665;
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Y., Kaneko T., Katoh T., Asamizu E., Kotani H.,
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71.4%;
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                                                                                                              Bacillus/Clostridium group; Bacillales;
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Pred. NO. 2.9e
2; Mismatches
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Matches 5
 O52995 PRELIMINARY;
O52995;
O1-JUN-1998 (TrEMBLrel. C
O1-JUN-1998 (TrEMBLrel. C
O1-DEC-2001 (TrEMBLrel. I
PCoLD-157 mbdD protein.
PCOLD-157 MBDD.
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SEQUENCE
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Horikoshi K.;
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397 AA;
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Schizosaccharomyces pombe (Fission yeast).
Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes;
Schizosaccharomycetales; Schizosaccharomycetaceae;
Schizosaccharomyces.
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01-JUN-1998 (TREMBLRel. 06, La
01-JUN-2001 (TREMBLRel. 17, La
Hypothetical 99.2 kDa protein
SPBC354.08C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and genomic sequence comparison with Bacillus subtilis."; Nucleic Acids Res. 28:4317-4331(2000).

EMBL; APO01509; BAB04293.1; -
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InterPro; IPR003370; Chromate_transp.
Pfam; PF02417; Chromate_transp; 2.
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127 POTENTIAL.
172 POTENTIAL.
395 POTENTIAL.
603 POTENTIAL.
661 POTENTIAL.
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666 POTENTIAL.
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667 POTENTIAL.
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01-DEC-2001
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MEDLINE-98092211; PubMed-9431914;

Hofinger C., Karch H., Schmidt H.;

"Structure and function of plasmid pColD157 of enterohemorrhagic

Escherichia coli 0157 and its distribution among strains from patients

with diarrhea and hemolytic-uremic syndrome.";

J. Clin. Microbiol. 36:24-29(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sinorhizobium meliloti strain 1021.";
Proc. Natl. Acad. Sci. U.S.A. 98:9877-9882(2001).
EMBL; AL591785; CAC45487.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Capela D., Barloy-Hubler F., Gouzy J., Bothe G., Ampe F., Batut Boistard P., Becker A., Boutry M., Cadieu E., Dreano S., Gloux S. Godrie T., Goffeau A., Kahn D., Kiss E., Lelaure V., Masuy D., Pohl T., Portetelle D., Puehler A., Purnelle B., Ramsperger U., Renard C., Thebault P., Vandenbol M., Weidner S., Galibert F., "Analysis of the chromosome sequence of the legume symbiont sinorhizobium meliloti strain 1011.";
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Bacteria; Proteobacteria; alpha subdivision;
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Plasmid pColD-157.
Bacteria; Proteoba
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161 AA; 1
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DNA Res. 7: 331-338(2000).
EMBL; AP003007; BAB52172.1; -.
InterPro; IPR0014839; Aminotransf1/2.
InterPro; IPR001917; NHTRANSF2.
InterPro; IPR001917; NHTRANSF2.
InterPro; IPR001917; NHTRANSF2.
InterPro; IPR001917; NHTRANSF2.
INTERPO155; aminotran_1_2; 1.
PIGRFAMs; TIGR01141; hisG; 1.
PROSITP: PS00599; AA_TRANSFER_CLASS_2; UNKNOWN_1.
                                                                           Methyitransferase;
INIT_MET 0
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Appl. Environ. Microbiol.
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Eukaryota; Fungi; Ascomycot
Eurotiales; Trichocomaceae;
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01-MAY-2000 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
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                                                                                                                     Pfam; PF00891; Methyltransf_2; 1.
PROSITE; PS00879; ODR_DC_2_2; UNKNOWN_1.
                                                                                                                                                                                         InterPro; IPR000183; Decarbxylse2.
InterPro; IPR001601; Methyltransf.
                                                                                                                                                                                                                                                                                                                                                                                                                 Motomura M., Chihaya N., Shinozawa T., Hamasaki T., Yabe "Cloning and characterization of the O-methyltransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. STRAIN-NIAH-26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O-methyltransferase.
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MEDLINE-21082930;
                                                                                                                                                                          InterPro;
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CBI_TaxID=381;
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Bacteria; Proteobacteria; alpha sub
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                                                                                                                                            Pro; IPR001077;
PF00891; Methyl
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40710 MW;
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Score
                                                  C9866E7A96272005 CRC64;
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Length 385;
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STRAIN=CRA01-2B;
MEDLINE=20267858; pubMed=10806361;
YU J., Woloshuk C.P., Bhatnagar D., Cleveland 'Yu J., Woloshuk C.P., Bhatnagar D., Cleveland 'Cloning and characterization of avfa and omtB aflatoxin biosynthesis in three Aspergillus sp Gene 248:157-167(2000),
EMBL; AF159789; AAF26223.1; -.
InterPro; IPR000183; Decarbxy1se2.
InterPro; IPR001601; Methyltransf.
InterPro; IPR001077; O_Metransf.
InterPro; IPR00191; Methyltransf.2; 1.
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01-MAY-2000 (TrEMBLrel. 1
01-MAY-2000 (TrEMBLrel. 1
01-MAR-2002 (TrEMBLrel. 2
0-methyltransferase B.
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01-0CT-2000 (TrEMBLrel.
01-0CT-2000 (TrEMBLrel.
01-MAR-2002 (TrEMBLrel.
0-methyltransferase B.
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Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;

Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Asperg
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Interpro; IPR001601; Methyltransf.
Interpro; IPR001077; O_Metransf2.
Pfam; PF00891; Methyltransf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=20267858; PubMed=10806361; Yu J., Woloshuk C.P., Bhatnagar D., Cleveland T.E.; "Cloning and characterization of avfA and omtB general aflatoxin biosynthesis in three Aspergillus species Gene 248:157-167(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aspergillus parasiticus.
Eukaryota; Fungi; Ascomycota;
Eurotiales; Trichocomaceae; mi
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PROSITE; PS00879; ODR_DC_2_2; UNKNOWN_1.
                                                                                                                                                                                          SEQUENCE FROM N.A.
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Pred. No.
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itosporic Trichocomaceae; Aspergillus.
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01-MAR-2001
01-MAR-2001
                                                                                                                                                                                                                                                    Q9GRW8
99GRW8; PRELIMINARY;
01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
01-JUN-2001 (TrEMBLrel. 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAR-2001 (TIEMBLIFEL 16, Created)
01-MAR-2001 (TIEMBLIFEL 15, Last sequence update)
01-JUN 2001 (TIEMBLIFEL 17, Last annotation update)
101-JUN 2001 (TIEMBLIFEL 17, Last annotation update)
Similarity to GTPase activating protein.
Arabidopsis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core e
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
SEQUENCE FROM N.A.
Campesan S., Chalmers D., Sandrelli F., Megighian A., Peixoto A.A.
Costa R., Kyriacou C.P.;
"Comparative analysis of the nonA region in Drosophila identifies
"Comparative analysis of the sy constrain nonA promoter evolution
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ298996; CAC10057.1; -.
                                                                                                                                 Drosophila virilis (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Tracheata;
Pterygota; Neoptera; Endopterygota; Diptera
Ephydroidea; Drosophilidae; Drosophila.
NCBI_TaxID-7244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA Res. 4:215-230(1997).
EMBL; AB005232; BAB08757.1; -.
InterPro; IPR000195; RabGAP_TBC
Pfam; PF00566; TBC; 1.
SMART; SM00164; TBC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sato S., Kotani H., Nakamura Y., Kar
Miyajima N., Tabata S.;
"Structural analysis of Arabidopsis
features of the 1.6 Mb regions cover
                                                                                                                                                                                                                          GPI1.
                                                                                                                                                                                                                                      GPI1 protein.
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Methyltransferase; Transferase.
SEQUENCE 386 AA; 43160 MW; F199017CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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Maximum Match 100%
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Maximum DB seq length: 2000000000
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Perfect score:
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232.223 Million cell updates/sec
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| de #77             | AAM21329   | 22 | 45            | 45.0     | 45            |  |
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| 3                  | 0          | 22 | <u>4</u><br>5 | 45.0     | 45            |  |
| þr                 | AAM64615   | 22 | 45            | 45.0     | <b>4</b> 5    |  |
| #8612 €            | ABB26613   | 22 | 45            | 5        | <b>4</b><br>5 |  |
| Q.                 | 36         | 22 | 45            | 5        |               |  |
| 3                  | ABG28279 · | 22 | 1120          | 5        |               |  |
| 2                  | AAW36106   | 18 | 732           | 5        |               |  |
| ~                  | AAW36105   | 18 | 732           |          | <b>4</b><br>6 |  |
| Bovine Factor-XIII | AAW00466   | 17 | 732           | 5        |               |  |
| Novel human prote  | ABB97393   | 23 | 579           | 5        | 46            |  |
| Drosophila melanog | ABB67060   | 22 | 427           | 46.0     | 46            |  |
| Botulism toxin hea | AAB04102   | 22 | 410           | ٠        | 46            |  |
| Human squamous cel | AAY72655   | 22 | 390           |          |               |  |
| ъ.                 | AAY25927   | 20 | 390           |          | 46            |  |
| astatir            | AAW15242   | 18 | 390           |          |               |  |
| maspin p           | AAY02607   | 20 | 375           | <u>.</u> |               |  |
| •                  | AAW69287   | 19 | 375           | .5       |               |  |
| suppres            | AAR86882   | 17 | 375           | <u>-</u> |               |  |
| n. Homo            | AAR50938   | 15 | 375           | .5       | 46            |  |
| protein            | AAM79491   | 22 | 1047          | .7       |               |  |
| Human protein SEQ  | AAM78507   | 22 | 1047          | .7       | 47            |  |
| င္                 | AAR73945   | 16 | 504           | .7       | 47            |  |
| er choleste        | AAR72509   | 16 | 504           | . 7      | 47            |  |
| Human chloesterol  | AAR72507   | 16 | 504           | .7       | 47            |  |
| _                  | AAR24482   | 13 | 504           | .7       | 47            |  |
|                    | AAR72508   | 16 | 503           | .7       | 47            |  |
| Truncated human c  | AAR72601   | 16 | 482           | .7       | 47            |  |
| squamo             | AAY72654   | 22 | 390           | .0       | 50            |  |
| CCA1               | AAY25928   | 20 | 390           |          | 50            |  |
| ₿                  | AAY32078   | 20 | 390           | .0       | 50            |  |
| is B v             | 9          | 20 | 390           |          | 50            |  |
| riastatin t        | 524        | 18 | 390           |          | 50            |  |
| C antigen.         | 25         | 13 | 9             | ٥.       | 50            |  |
| sin                | 8307       | 22 | 380           | <u>.</u> | 83            |  |
| Rat megsin protei  | AAG64286   | 22 | 380           | 68.0     | 88            |  |
|                    |            |    |               |          |               |  |

## ALIGNMENTS

AAR48379;

AAR48379 standard; Protein; 380 AA

Human megakaryocyte differentiation factor.

16-AUG-1994 (first entry)

RESULT 1
AARR48379
ID AARR4879
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X WPI; 1994-058782/08. N-PSDB; AAQ56670. Ishida N, Iv Tsujimoto M, 17-JUL-1992; 04-MAR-1993; Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy. (SUNR ) SUNTORY LTD. (TSUJ/) TSUJIMOTO M. 19-JUL-1993; 23-FEB-1994 EP583884-A. Homo sapiens Iwasa F, Kuri M, Tsuruoka N, 92JP-0212305 93JP-0067339 93EP-0305654 Kurihara T, Miura K, Nakazato H; oka N, Yamaguchi N, Yamaichi K;

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RESULT 2
AAY08254
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                                                     proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial cells, such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryocytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol. wt. 55-57kD by SDS-PAGE and exhibits an isoelectric point of 6.0-7.0.
                                                                                                                                                                                                                     (KURO/)
                                                                                                                                                                                                                                                                                                                                    Homo
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New megakaryocyte differentiation epidermoid carcinoma cells, used t
                                         Sequence
                                                                                                                          Claim 1; Page 62-64; 100pp; Japanese.
                                                                                                                                              Megsin protein expressed specifically
                                                                                                                                                                    N-PSDB;
                                                                                                                                                                                                 Miyata T;
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                                                                                                                                                                                                                                                                                                                                                         human;
                                                                                                                                                                                                                                                                                                                                                                 Megsin; mesangial cell;
                                                                                                                                                                                                                                                                                                                                                                                      Human megsin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human MDF
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           Local
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DB; AAX56712.
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          100.0%;
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Score 100; DB 20;
Pred. No. 7.6e-08;
Mismatches 0;
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Pred. No. 7.6e-08;
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RESULT 4
AAB83075
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standard;

Protein; 380

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RESULT 3
AAB24142
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                                                             Best
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                                                                                                                   The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the human megsin protein, which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                               Evaluating renal function comprises assaying megsin protein biological sample \ \boldsymbol{\cdot}
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28-OCT-1999;
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                                                             Local
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                                                l Similarity
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FUSO PHARM IND LTD
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            VERVDFTNHLEDTRRNINK
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 VERVDETNHLEDTRRNINK
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99JP-0306623
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                                               Score 100; DB 21; Pred. No. 7.6e-08; Mismatches 0;
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                                                                                                                                                                          Human megakaryocyte differentiation factor; MDF; thrombopoietin; haematopoietic stimulating factor; thrombocytopaenia; platelet; bone marrow transplantation; cancer chemotherapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                                                       Human megakaryocyte
                                                                                                                                                                                                                                                                                                                   16-AUG-1994
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N-PSDB; AAF82438.
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                         Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126 VERVDETNHLEDTRRNINK 144
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$\times CCCCCCCCCCCCX\times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P \times P 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
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                                                                                     Key
Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human MDF (see AAR48379) can be isolated from a culture of human epidermoid carcinoma A431 cells in protein-free medium. The MDF stimulates differentiation of megakaryoytes from myeloid cells in the presence of IL-3. The MDF acts in vivo as a thrombopoletin making it useful for treatment of diseases involving a decrease in platelet number (esp. thrombocytopaenia) such as occurs in bone marrow transplantation and in chemotherapy. MDF has mol.wt. 55-57kD by SDS-PAGE, exhibits an isoelectric point of 6.0-7.0 and contains an amino acid sequence comprising at least one of the sequences AAR57107-R57115.
                                                                                                                                                                                                                                                                                                                                                                           14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 18; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New megakaryocyte differentiation factor epidermoid carcinoma cells, used to treat decrease in platelets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUL-1992;
04-MAR-1993;
                                                                                                                                                                        Mus musculus
                                                                                                                                                                                                                                                                                                                Mouse megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY08256;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY08256 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tsujimoto M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ishida N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-JUL-1993;
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WO9915652-A1
                                                                                                                                                                                                                                numan;
                                                                                                                                                                                                                                                           Megsin; mesangial cell; treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SUNR ) SUNTORY LTD.
(TSUJ/) TSUJIMOTO M.
                                                                                                                                                                                                                                rat; murine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 VERVDFTNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEXVDFTNHLEDTXXNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Iwasa F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tsuruoka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92JP-0212305
93JP-0067339
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                                                     Location/Qualifiers
1..368
/note= "partial sea
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kurihara T, Miura
oka N, Yamaguchi N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82.0%;
84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "not determined"
                                                        "partial sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treat conditions involving
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yamaichi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.8e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nakazato
amaichi K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  isolated from human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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98WO-JP04269

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RESULT 7
AAB24151
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                              WPI;
                                    Disclosure;
                                                      Evaluating renal function comprises assaying megsin protein biological sample
                                                                                    N-PSDB;
                                                                                                                                                                                                                                                                              Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                                               Miyata T;
                                                                                                                                  (MIYA/)
                                                                                                                                   (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD
(MIYA/) MIYATA T.
                                                                                                                                                                         19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                     17-MAR-2000;
                                                                                                                                                                                                                        28-SEP-2000
                                                                                                                                                                                                                                            WO200057189-A1
                                                                                                                                                                                                                                                               Mus musculus.
                                                                                                                                                                                                                                                                                                                      Mouse megsin
                                                                                                                                                                                                                                                                                                                                          30-JAN-2001
                                                                                                                                                                                                                                                                                                                                                            AAB24151;
                                                                                                                                                                                                                                                                                                                                                                               AAB24151 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 76-79; 100pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MIYA/) MIYATA T. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                   2000-611642/58.
DB; AAC55239.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1999-276983/23
DB; AAX56714.
                                                                                                                                                                                                                                                                                                                                                                                                                              114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           such as IgA nephropathy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                       VERVDFTNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                              VERVDFTNDVQDTRFKINK 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368 AA;
                                   Page 89-91; 93pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                     2000WO-JP01646
                                                                                                                                                                                                                                                                                                                     protein sequence
                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                         99JP-0075305.
99JP-0306623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97JP-0275302.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71.0%;
73.7%;
                                                                                                                                                                                                                                                                                                                                                                               368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 71; DB Pred. No. 0.00 Pred. No. 0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Japanese.
                                                                                                                                                                                                                                                                                                                      SEQ ID NO:21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 20;
0.0034;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ű
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      368;
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The present invention describes a method for evaluating renal function The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing

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1 VERVDFTNHLEDTRRNINK 19

Query Match Best Local Matches

l Similarity 14; Conserv

71.0%;

Score 71; DB 22; Pred. No. 0.0034; 2; Mismatches

Length 368

Indels

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Gaps

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RESULT 8
AAB83077
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the mouse megsin protein, which is given in the exemplification of the present invention.
                                          complex and an increase in mesangial cells. The animal model is usef for analysing the pathology of Chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases. Highly uniform models can be made easily and in large numbers using
                                                                                                    sequence may be introduced into a mouse to produce an animal mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an
 Sequence
                                                                                                                                    The present sequence is murine megsin protein. The human megsin coding sequence may be introduced into a mouse to produce an animal model of
                                                                                                                                                                               Disclosure; Page 52-53; 62pp; Japanese
                                                                                                                                                                                                                                                            WPI; 2001-300136/31.
N-PSDB; AAF82440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murine megsin
                                                                                                                                                                                                             Mouse model for mesangial cell proliferative nephritis for development and screening of new treatments
                                                                                                                                                                                                                                                                                                        Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                  06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                               06-OCT-2000; 2000WO-JP06988
                                                                                                                                                                                                                                                                                                                                                                                                                                             12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200124628-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB83077;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB83077 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                     (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse; megsin;
                               method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERVDETNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mouse;
368 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mesangial cell proliferative nephritis; nephrotropic;
se; glomerular disease; animal model; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                  99JP-0285736
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           368
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                                                                                                        an immune
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                                                                                           useful
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RESULT 9
AAYO8255
ID AAYO
XX AAYO
XX AAYO
XX AAYO
DT 14-J
DEE Rat
XX Megs
KW huma
XX WO99
XX WO99
XX O1-P
XX CKUI
PA (KUI
PA (KUI
PA (KUI
PA (MI)
XX WPI
DR WPI
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CC Th1
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RESULT 10
AAB24150
ID AAB24
XX AAB24
XX AAB24
XX 30-JA
DT 30-JA
DT 30-JA
XX Megsi
KW Megsi
KW IGA;
KW Glagn
XX ARTLU
XX RATLU
XX KW Glagn
                                                                                                                                                                                                            음 6
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                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 13
                                         Megsin; mesangium-predominant gene; serpin regulated; nephropathy; IgA; immunoglobulin A; detection; renal function; renal disorder; diagnosis; biological sample; blood; urine.
                                                                                                                                                                                                                                                                                                                            This invention describes the isolation of novel megsin nucleic acid and proteins from human, rat and mouse tissue. This protein is expressed specifically in mesangial cells. The products of the invention are useful for the treatment and diagnosis of diseases involving mesangial
                                                                                      Rat megsin protein sequence SEQ
                                                                                                            30-JAN-2001
                                                                                                                                 AAB24150;
                                                                                                                                                       AAB24150 standard;
                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                      cells, such as IgA
                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 69-72; 100pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                          Megsin protein expressed specifically in mesangial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-276983/23
N-PSDB; AAX56712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (KURO/) KUROKAWA K.
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Megsin; mesangial cell; human; rat; murine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rat megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY08255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY08255
                     Rattus norvegicus
                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                             126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114
                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                       VERVDFTNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERVDFTNDVQDTRFKINK 132
                                                                                                                                                                                                            VERVOFTNDIQETREKINK 144
                                                                                                                                                                                                                                                                                                380 AA;
                                                                                                                                                                                                                                                      Conservative
                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97JP-0275302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-JP04269
 Location/Qualifiers
                                                                                                                                                       Protein; 380
                                                                                                                                                                                                                                                                                                                     nephropathy.
                                                                                                                                                                                                                                                               68.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treatment; diagnosis; disease; IgA nephropathy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                380
                                                                                                                                                                                                                                                     ω,.
                                                                                                                                                                                                                                                               Score 68;
Pred. No.
                                                                                                                                                      B
                                                                                                                                                                                                                                                      Mismatches
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                                                                                      ID NO:19.
                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                               DB 20;
                                                                                                                                                                                                                                                                          Length 380;
                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                    RESULT 11
AAG64286
 Вþ
                                                                                                                                                                                                                                                                                     Ş
          28-DEC-1999;
                              26-DEC-2000; 2000WO-JP09251
                                                                          WO200148019-A1
                                                                                               Rattus norvegicus
                                                                                                                     Rat; megsin;
                                                                                                                                         Rat megsin protein
                                                                                                                                                                21-SEP-2001
                                                                                                                                                                                      AAG64286;
                                                                                                                                                                                                          AAG64286 standard;
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renal

mesangial cell; mesangium proliferative nephritis.

99JP-0373677

(first

entry)

Protein;

380

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0;

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Matches
                                                                  Query Match
Best Local
                                                                                                                                The present invention describes a method for evaluating renal function. The method comprises assaying megsin protein in biological sample. Also described are: (1) use of a antimegsin protein antibody for diagnosing renal function; and (2) a kit for detecting megsin protein comprising: (a) antimegsin protein antibody attached to solid magnetic particles; (b) direct or indirect fixing for the antibody to the particles; and (c) a magnet. The process is useful for evaluating renal function and diagnosing renal disorders by assaying megsin protein in biological samples (preferably urine or blood). The process is reproducible and gives accurate results. The present sequence represents the rat megsin protein, which is given in the exemplification of the present invention.
                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                 Evaluating renal function comprises assaying megsin protein biological sample \ \boldsymbol{\cdot}
                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-611642/58
N-PSDB; AAC55238.
                                                                                                                                                                                                                                                                                                                                                                                                                  Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-MAR-2000; 2000WO-JP01646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Misc-difference
                                                                                                                                                                                                                                                                                                       Example 2; Page 81-84;
                                                                                                                                                                                                                                                                                                                                                                                                                                             (KURO/) KUROKAWA K.
(FUSO ) FUSO PHARM IND LTD
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-MAR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200057189-A1
126 VERVDFTNDIQETRFKINK 144
                                                       13;
                        1 VERVDFTNHLEDTRRNINK 19
                                                                  Similarity
                                                                                                           380 AA;
                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99JP-0075305
99JP-0306623
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note-
                                                                  68.0%;
                                                                                                                                                                                                                                                                                                    93pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "unspecified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "unspecified"
                                                    ω
                                                                 Score
Pred.
                                                       Mismatches
                                                                  No.
                                                                  DB 21;
0.011;
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                                                                               Length 380;
                                                       Indels
                                                       0
                                                     Gaps
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RESULT 12
AAB83076
ID AAB83776
AAB830776
AAB83076
AC AAB83
XX AAB83
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                   The present sequence is rat megsin. The human megsin coding sequence may be introduced into a mouse to produce an animal mesangial cell proliferative nephritis. The symptoms include enlargement of the mesangial base region, sedimentation of an
  enlargement complex and
                                                                                                                                                                                                                                                                    N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a novel antibody which recognises a peptide consisting of residues 341-354 of rat megsin protein. The present sequence is the protein sequence for rat megsin, which was used in the present invention. Mesgin is highly expressed in renal mesangial cells and its level is elevated in mesangium proliferative nephritis. Assay of the serum or urine level using the antibody is therefore indicative of this type of disorder.
                                                                                                                                              Disclosure;
                                                                                                                                                                                                         Mouse model for mesangial cell proliferative nephritis
                                                                                                                                                                                                                                                                                                                                        Miyata
                                                                                                                                                                                                                                                                                                                                                                                  (KURO/) KUROKAWA
(MIYA/) MIYATA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200124628-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rat; megsin; mesangial cell proliferative nephritis; nephrotropic; transgenic mouse; glomerular disease; animal model; drug screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rat megsin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB83076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB83076 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New antibody recognizing a partial sequence of diagnosis of mesangium proliferative nephritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Miyata T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (KURO/) KUROKAWA (MIYA/) MIYATA T.
                                                                                                                                                                                          screening of
                                                                                                                                                                                                                                                                 2001-300136/31.
DB; AAF82439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-425651/45
DB; AAH48181.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126
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                                                                                                                                                                                                                                                                                                                                                                                                           KUROKAWA K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       380 AA;
                                                                                                                                         Page 48-50; 62pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 54-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-JP06988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
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                                                                                                                                                                                            new treatments
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Pred.
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No.
    cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         animal model; drug screening
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0.011;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rat megsin protein
animal model is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                for development
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                        an
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                                                                    model
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useful
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RESULT 13
AAR25276
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Best Local S
Matches 13
       N-PSDB;
                               Kato
                                                                                                                                                                                                                                                                                                                         Key
Region
                WPI; 1992-235415/29
                                              (DAIN-)
                                                                                                                                                                                            Modified-site
                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                 diagnosis;
                                                                                                                                                                                                                                                                                                                                                                         Squamous cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for analysing the pathology of chronic glomerular diseases and for screening compositions for prevention and treatment of the diseases screening compositions for prevention and in large numbers using this by uniform models can be made easily and in large numbers using
                                                                      30-NOV-1990;
                                                                                      29-NOV-1991;
                                                                                                      09-JUL-1992.
                                                                                                                      DE4139418-A.
                                                                                                                                             Modified-site
                                                                                                                                                             Modified-site
                                                                                                                                                                              Modified-site
                                                                                                                                                                                                                             Region
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                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                          SCC antigen
                                                                                                                                                                                                                                                                                                                                                                                                         08-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                         AAR25276;
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                              Η,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 VERVDFTNHLEDTRRNINK
                                               DAINABOT
DAINABOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l Similarity
13; Conserv
       AAQ25817
                              Sekiguchi K,
                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERVDFTNDIQETRFKINK
                                                                                                                                                                                                                                                                                                                                                                   serine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                carcinoma; cancer; immunogen; monoclonal antibody;
rine protease inhibitor.
                                                                       90JP-0330155
                                                                                      91DE-4139418
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antigen sequences"
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antigen sequences"
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antigen sequences"
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                                                      LTD
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                               Suminami
                                                                                                                                                                    "glycosylation
                                                                                                                                                    "glycosylation site"
                                                                                                                                                                                     "glycosylation site"
                                                                                                                                                                                                                                                                                                          "region
                                                                                                                                      "glycosylation site"
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3; Mismatches
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Matches 10
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                                                                                Modulating cell proliferation of psoriastatin type I and II useful for treatment of cancer
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  Psoriastatin type I (AAW15241) is a 43 kDa polypeptide that
                                            Disclosure;
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17-OCT-1995;
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antagonist.
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                                          Page 44-45; 63pp;
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                                                                                                         modulating activity (ant)agonists,
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                                                             The present sequence comprises human squamous cell carcinoma antigen (SCCAl), a protein newly identified as being a receptor for hepatitis B virus (HBV). Recombinant proteins having fully, or in part, the present sequence or an allelic variant (see AAY32078) of it, are claimed and can be produced in claimed prokaryotic or eukaryotic (especially human HepG2 cell line) host cells using claimed vectors carrying SCCAl nucleic acids (see AAX20257 and AAZ20258). Transgenic animals expressing SCCAl or its allelic variants are also claimed. The recombinant SCCAl proteins are used in molecular screening assays to identify new drugs, as drugs for the treatment of hepatitis B and in the production of monoclonal and polyclonal antibodies (claimed). The transgenic animals allow the protein animals allow the protein animals allow the production of figure in the production of monoclonal and polyclonal antibodies (claimed). The transgenic animals allow the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production of the production 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
and polyclonal antibodies (claimed). The truthe possibility of in vivo evaluation of the with anti-hepatitis activity.
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Total number of hits satisfying chosen parameters:
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Perfect score:
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Listing first 45 summaries
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| 40.0            | 40.5             | 41.0                | 41.0              | 41.0              | 41.0              | 41.0              | 41.0              | 42.0                | 42.0              | 43.0                | 43.0              | 43.0              | 45.0              | 45.0              | 45.0              | 45.0              | 46.0              |
| 279             | 616              | 501                 | 379               | 379               | 379               | 379               | 376               | 317                 | 261               | 443                 | 390               | 390               | 400               | 400               | 391               | 391               | 732               |
| w               | 4                | 4                   | G                 | N                 | _                 | _                 | 4                 | 4                   | 4                 | 4                   | 4                 | 4                 | 4                 | 4                 | 4                 | 4                 | 5                 |
| US-08-872-979-5 | US-08-965-902A-2 | US-09-134-001C-5280 | PCT-US93-08322-4  | US-08-477-112-4   | US-08-477-108A-4  | US-08-121-714-4   | US-09-200-965-2   | US-09-134-001C-4537 | US-09-110-959A-2  | US-09-134-001C-4915 | US-09-266-910-4   | US-09-266-910-3   | US-09-643-597-112 | US-09-123-912-112 | US-09-643-597-110 | us-09-123-912-110 | PCT-US95-17026-2  |
|                 |                  | Sequence 5280, Ap   | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 4, Appli | Sequence 2, Appli | Sequence 4537, Ap   | Sequence 2, Appli | Sequence 4915, Ap   | Sequence 4, Appli | Sequence 3, Appli |                   | Sequence 112, App | Sequence 110, App | Sequence 110, App | Sequence 2, Appli |

Sequence

Run on:

## ALIGNMENTS

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US-08-611-977-3
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GENERAL IN
TELEFAX: (703) 836-202 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: TSUJIMOTO, MAS
APPLICANT: IWASA, FUYUKI
APPLICANT: TSURQUOKA, NO.
APPLICANT: NAKAZATO, Hiro
APPLICANT: MIURA, Kenju
APPLICANT: MIURA, Kenju
APPLICANT: KURIHARA, Tats
                                                                                                                                                         APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993 ATTORNEY AGENT INFORMATION:
                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATECHTIN Release #1.0, V
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/611,977
FILING DATE: 06-MAR-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: ISHIDA, NO. 5972886uhiro
APPLICANT: KURIHARA, Tatsuya
APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAICHI, KOZO
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                             REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                          FILING DATE: 17-JUL-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Burns, Do
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: P.O. Box
CITY: Alexandria
STATE: Virginia
                                                                                                                  NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
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                                                          TELEPHONE:
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P.O. Box 1404
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NAKAZATO, Hiroshi
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TYPE: amino acid STRANDEDNESS: si TOPOLOGY: linear

CENGTH:

19 amino acids

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                              ; MOLECULE TYPE: US-08-472-659-34
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 Query Match
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                                                                                                                    INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENERAL INFORMATION:
                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                REFERENCE/DOCKET NUMBER: 00:
                                                                                                                                                                                          REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS
                                                          TOPOLOGY: linear
                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: JP 4-
FILING DATE: 17-JUL-1992
                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
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                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alexandria
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                                                                      amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERVDETNHLEDTRRNINK 19
                                                                                                                                                                                                        McGowan, Malcolm K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Virginia
: United States
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                                                                                                                                (703) 836-2021
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linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AMAICHI, Kozo
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                                                                                                                                                                                                                                                                                04-MAR-1993
                                                                                                                                                                                                                                        UMBER: US 08/091,028
14-JUL-1993
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                                          protein
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100.0%; Score 100;
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                                                                                                                                                                                                                                                                                                                                          JP 4-212305
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DB 2;
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Length 380;
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                                                                                                                    US-08-474-661-34
                                                                       Query Match
Best Local :
                                                         Matches
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                                                                                                                                                                                                          TELEFAX: (703) INFORMATION FOR SEQ
                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 0
                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                            FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                           LENGTH: 380 amino acids
                                                                                                                                                 TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/474,661 FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: JP 4-212305
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
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126 VERVDFTNHLEDTRRNINK 144
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                           1 VERVDFTNHLEDTRRNINK 19
                                                         19;
                                                                        Similarity
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                                                                                                                                                            amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            George Mason Bldg., Washington & Prince Sts
                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IBM PC compatible SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                          (703)
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YAMAGUCHI, NO. 5874253omi
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                                                                                                                                                   linear
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                                                                                                                                protein
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O
                                                       100.0%; Score 100; DB 2;
100.0%; Pred. No. 5.7e-09;
tive 0; Mismatches 0;
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): Mismatches 0;
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                                                                                   Length 380;
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APPLICANT:

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                                                               Sequence 3, Application Patent No. 5831030 GENERAL INFORMATION:
                                                                                                                                                                                                                                                             Query Match 100.
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (703) 836-2021
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
TYPE: amino acid
TOPOLOGY: linear
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                  APPLICANT:
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REFERENCE/DOCKET NUMBER: 001560-204
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 14-JUL-1993
PRIOR APPLICATION DATA:
APPLICATION UNMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION UNMBER: ID 6-067320
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APPLICATION NUMBER: |
FILING DATE: 14-JUL-
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CORRESPONDENCE ADDRESS:
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                                                    APPLICANT:
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CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/611,977 FILING DATE: 06-MAR-1996
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                                                                                                                                                                                         INFORMATION:
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                                                                                                      Application US/08472659
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P.O. Box 1404
TSUJIMOTO, Masafumi
IWASA, Fuyuki
TSUROUOKA, No. 5831030uo
NAKAZATO, Hiroshi
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YAMAICHI, KOZO
YAMAGUCHI, NO. 5972886omi
ENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-MAR-1993
                                                                                                                                                                                                                                                                             100.0%; Score 100; DB 2; 100.0%; Pred. No. 5.7e-09;
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MOLECULE TYPE: peptide US-08-472-659-3
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US-08-474-661-3
                                                                                                                                                                               Patent No. 5874253
GENERAL INFORMATION:
APPLICANT: TSUJIM
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Sequence 3, Apprix
No. 5874253
                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATION CONTROL Release ****, SOFTWARE: Patentin Release ****, CURRENT APPLICATION DATA:

CURRENT APPLICATION NUMBER: US/08/472,659
                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 14-JUL-1993
ATTORNEY/AGENT INFORMATION:
NAME: MCGOWAN, Malcolm K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: JP 5. FILING DATE: 04-MAR-1993 PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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APPLICANT: YAMAGUCHI, NO. 5831030omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: JP 4-212305 FILING DATE: 17-JUL-1992
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Similarity 84.2%;
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ISHIDA, No. 5831030uhiro
KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAGUCHI, KOZO
TAMAGUCHI, NO. 58742530m1
VENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
EQUENCES: 34
                                                                                                                              IWASA, Fuyuki
TSURUOKA, No. 5874253uo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                   MIURA, Kenju
ISHIDA, No. 5874253uhiro
                                                                                                                                                                                        TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (703)
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Pred. No. 1.6e-07;
                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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Patent No. 578342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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INFORMATION FOR SEQ ID NO:
               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                     APPLICANT:
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LENGTH: 19 amino acids
TYPE: amino acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 30,427
REFERENCE/DOCKET NUMBER: 00
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: JP 5-067339
FILING DATE: 04-MAR-1993
ATTORNEY_AGENT INFORMATION:
NAME: REA, TERESA STANEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/091,03
FILING DATE: 14-UUL-1993
APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-UUL-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                        TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                        APPLICANT:
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                                                                                                        STREET: 400 Garden City Plaza
CITY: Garden City
STATE: New York
COUNTRY.
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hes 16; Conserv
 SOFTWARE:
                                                                                                  COUNTRY:
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CITY: Alexandria
STATE: Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/474,661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
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                                                                                    11530
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                                                                                                                                                                                                                                                                                                                                                         Application US/08568147B
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George Mason Bldg., Washington & Prince Sts
                                                                                               USA
                                                                                                                                                                                                                                    Takeda, Katsumichi
VENTION: DNA FRAGMENT CODING FOR SQUAMOUS CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : (703) 836-6620
(703) 836-6620
OR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                       Sekiguchi, Kiyoshi
                                                                                                                                                                                                                                                                                        Kato, Hiroshi
                                                                                                                                                                                                                                                                                                        Suminami,
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.25
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Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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1.6e-07
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US-08-135-510-5
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                  INFORMATION FOR SEQ ID NO:
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TELEX: 230 901 SANS U
INFORMATION FOR SEQ ID NO:
                                                                                                                                 REFERENCE/DOCKET NUMBER: 18
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/135,510
                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 390 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 02-DEC-1991 ATTORNEY/AGENT INFORMATION:
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TOPOLOGY: 1:--
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                                  TYPE:
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                 TOPOLOGY:
                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/0 FILING DATE: 13-OCT-1993
                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY
                                                                                                                 TELEFAX:
                                                                                                                                                                                     REGISTRATION NUMBER:
                                                                                                                                                                                                   NAME: SANDERCOCK, Colin G
                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER:
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                                                ENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 800,952 FILING DATE: 02-DEC-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/568,147B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 VERVDFTNHLEDTRRNIN 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
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                               H: 482 amino acids amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                    Washington,
                                                                                                    904136
                                                                                                                                                                                                                                                                                                                                                                                                                    E: Foley & Lardner
3000 K Street, N.W., Suite 500
ashington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                 (202)672-5399
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                 linear
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Truncated Human Cholesterol
7a-Hydroxylase, Method of Production and Use Thereof
5: 5
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Pred. No. 1.
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                                                                                                                                                                                                                                                                                                     Version #1.25
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Query Match Best Local Similarity

47.0%; 66.7%;

Score 47; Pred. No.

DB 5.2;

1;

Length 482;

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US-08-477-953-5
                                                                                         RESULT 10
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     Sequence 5, Application US/08477953
Patent No. 5677159
GENERAL INFORMATION:
APPLICANT: CHIANG, John Young L.
                                                                                                                                                                                                                      Best
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 482 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER: 31,298
REFERENCE/DOCKET NUMBER: 18
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/135,488
FILING DATE: 13-0CT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 13-OCT-1993
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/135,511
FILING DATE: 13-OCT-1993
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                        Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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                                                                                                                                      347 DFTLHLEDGSYNIRK 361
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                                                                                                                                                                                                                        Similarity
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WENTION: Genomic DNA of Human Cholesterol
WENTION: 7a-Hydroxylase and Methods of Using It
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PatentIn Release #1.0, Version #1.25
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     John Young Ling
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                                                                                                                                                                                                                        Pred.
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                                                                                                                                                                                                                                      Length 482;
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Best Local S
Matches 10
                                                                                                                                                                                                                   Sequence 5, Application US/08477952 Patent No. 5851780
GENERAL INFORMATION:
APPLICANT: CHIANG, John Young Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 482 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 21-DEC-1994
PRIOR APPLICATION UNBER: US 08/135,511
FILING DATE: 13-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                   APPLICANT: CHIANG, John Young Ling
TITLE OF INVENTION: Genomic DNA of Human Cholesterol
TITLE OF INVENTION: 7a-Hydroxylase and Methods of Using
NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 13-OCT-1993
ATTORNEY/AGENT INFORMATION:
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                                                     COUNTRY: USA
ZIP: 20007-5109
                                                                                                                    ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W
                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 31, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 01 FILING DATE: 13-OCT-1993
                                                                                                   CITY: Washington
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                                                                                     STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 08/135,510
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66.7%;
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Pred. No. 5
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RESULT 12
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US-08-477-952-5
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 482 amino acids
TYPE: amino acid
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                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/135,511
FILING DATE: 13-0CT-1993
CLASSIFICATION: 435
CLASSIFICATION: 435
                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
           ATTORNEY/AGENT INFORMATION:
NAME: SANDERCOCK, Colin G.
REGISTRATION NUMBER: 31,298
REFERENCE/DOCKET NUMBER: 18748/175
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Chiang, John TITLE OF INVENTION: Cho. TITLE OF INVENTION: Regu
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APPLICATION NUMBER:
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APPLICATION NUMBER: US 08
FILING DATE: 13-OCT-1993
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                                                                                                                                                                                                                                                                                                          ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W., Suite 500 CITY: Washington, D.C.
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REGISTRATION NUMBER: 31,298
REFERENCE/DOCKET NUMBER: 18748/221 HOCE
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TELEPHONE:
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66.7%;
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Regulatory Elements and Methods
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n Release #1.0, Version #1.25
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; MOLECULE TYPE: US-08-187-453-29
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US-08-187-453-29
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                 Query Match
Best Local
   Matches
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APPLICANT: Chiang,
TITLE OF INVENTION:
TITLE OF INVENTION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 503 amino acids
                                                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 18748/188
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                           FILING DATE: 13-OCT-1993
ATTORNEY/AGENT INFORMATION:
NAME: SANDERCOCK, Colin G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                     SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER: (
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CURRENT APPLICATION DATA:
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 Local Similarity 66. les 10; Conservative
                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/135,488 FILING DATE: 13-OCT-1993
                                                                                          TOPOLOGY:
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Local Similarity 66.7%;
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              47.0%;
66.7%;
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Regulatory Elements and Transcription Factors
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Score 47; DB Pred. No. 5.5; 0; Mismatches
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Pred. No. 5.
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              DB 1;
5.5;
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                            Length 503;
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US-08-135-511-28
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US-08-135-511-30
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Patent No. 5558999
GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 904136
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 504 amino acid
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FILTNG DATE: 13-OCT-1993
CLASSIFICATION: 435
ATTORNEY_AGENT INFORMATION:
NAME: SANDERCOCK, Colin G.
REGISTRATION NUMBER: 31.298
REGISTRATION NUMBER: 31.298
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
COUNTRY: USA
ZIF: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                            APPLICANT: Chiang, John
TITLE OF INVENTION: Cholesterol 7a-Hydroxylase Gene
TITLE OF INVENTION: Regulatory Elements and Methods for Using Them
NUMBER OF SEQUENCES: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 18
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
TELEFAX: (202)672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Rele
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Chiang, TITLE OF INVENTION: TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
STRANDEDNESS: sin
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
CITY: Washington, D.C.
                                                                                                           ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W., Suite 500 CITY: Washington, D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                       369 DFTLHLEDGSYNIRK 383
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PUBNTION: Cholesterol 7a-Hydroxylase Gene
VENTION: Regulatory Elements and Methods for Using Them
EQUENCES: 35
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66.78;
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5.5;
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Search completed: July 11, 2003, 12:02:06 Job time : 4.39709\ secs
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                                                                                                                     Matches
                                                                                                                                 Best Local Similarity
                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: SANDERCOCK, COLIN G.
REGISTRATION NUMBER: 31,298
REFERENCE/DOCKET NUMBER: 1874
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
TELEPAX: (202)672-5399
                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                        TOPOLOGY: 1. MOLECULE TYPE:
                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                 TELLEFAX: (2. TELEFAX: 904136
                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/135,511
FILING DATE: 13-OCT-1993
                                                                                                                                                                                                                                                  LENGTH:
                                                            369 DFTLHLEDGSYNIRK 383
                                                                                                                   10;
                                                                                     5 DFTNHLEDTRRNINK 19
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linear
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66.7%;
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Pred. No. 5.
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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length: 2000000000
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US-10-091-442-34
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10 US-09-140-719-34
7 US-08-731-566-2
9 US-09-823-187-29
US-09-823-187-29
US-09-823-187-28
9 US-09-823-187-28
9 US-09-823-187-28
10 US-09-910-1864-52-1
10 US-09-764-891-4893
10 US-09-764-891-4893
10 US-09-764-891-242
10 US-09-764-891-355
10 US-09-764-891-355
10 US-09-765-396A-110
10 US-09-785-795-110
10 US-09-785-778-110
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Sequence 3, Appli
Sequence 34, Appl
Sequence 34, Appl
Sequence 29, Appli
Sequence 29, Appli
Sequence 20, Appli
Sequence 27, Appl
Sequence 27, Appl
Sequence 28, Appl
Sequence 31, Appl
Sequence 31, Appl
Sequence 41911, A
Sequence 211, Appl
Sequence 242, App
Sequence 242, App
Sequence 110, App
Sequence 110, App
Sequence 110, App
Sequence 110, App
Sequence 110, App
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US-10-091-442-3
```

Database

| 39.5             | 39.5              | 40                 | 40                | 40.5             | 41                 | 41                 | 41                 | 41                | 41                  | 41                 | 41                 | 41              | 42               | 42                | 42                | 42                | 44                | 44                | 44               | 44                | 45                 | 45                | 45                 | 45                | 45                 |
|------------------|-------------------|--------------------|-------------------|------------------|--------------------|--------------------|--------------------|-------------------|---------------------|--------------------|--------------------|-----------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
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| 761              | 745               | 433                | 150               | 1019             | 818                | 748                | 705                | 558               | 531                 | 459                | 437                | 395             | 392              | 392               | 379               | 379               | 617               | 617               | 392              | 340               | 612                | 400               | 400                | 400               | 400                |
| 9                | 9                 | 9                  | 9                 | 10               | 9                  | 9                  | ဖ                  | 9                 | 9                   | 10                 | 10                 | 9               | 9                | 9                 | 9                 | 9                 | 9                 | 9                 | 9                | 10                | 10                 | 10                | 10                 | 10                | 9                  |
| US-10-011-582-10 | 10-000-823        | US-09-738-626-6592 | N                 | US-09-801-574-76 | US-09-738-626-6491 | US-10-128-714-8201 | US-10-128-714-3201 | US-09-941-831-28  | US-10-156-761-14639 | US-09-925-300-1440 | us-09-925-301-1200 | US-09-823-187-2 | US-10-198-070-70 | US-10-198-070-67  | US-09-895-814-946 | US-10-012-896-946 | -814-9            | US-10-012-896-947 | US-10-198-070-62 | US-09-764-898-169 | US-09-925-301-1358 | US-09-897-778-112 | US-09-850-716A-112 | US-09-735-705-112 | US-09-466-396A-112 |
| 10,              | Sequence 4, Appli | ٧                  | Sequence 203, App | e 76,            | 6491,              | Sequence 8201, Ap  |                    | Sequence 28, Appl | 14639,              | Sequence 1440, Ap  | `                  | ຸນ              | 70               | Sequence 67, Appl | Sequence 946, App | Sequence 946, App | Sequence 947, App | 94                | బ                | <u></u>           | _                  | _                 | _                  | Sequence 112, App | Sequence 112, App  |

Title: Perfect

Run on:

## ALIGNMENTS

```
Sequence 3, Application US/10091442
Patent No. US20020164711A1
GENERAL INFORMATION:
APPLICANT: TSUJIMOTO, Masafur
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/09/140,719

FILING DATE: 08-AUG-1998

APPLICATION NUMBER: US 08/474,661

FILING DATE: 07-JUN-1995

APPLICATION NUMBER: US 08/091,028

FILING DATE: 14-JUL-1993

APPLICATION NUMBER: JP 4-212305

FILING DATE: 17-JUL-1992

APPLICATION NUMBER: JP 6-067339
                                                                                                                                                                                                                                                                                                                       ZIP: 22313-1404
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAtentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KURIHARA, Tatsuya
YAMAICHI, KOZO
YAMAICHI, KOZO
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Alexandria
STATE: Virginia
                                                                                                                                                                                                                                                       CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Burns, Doane, STREET: P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OF SEQUENCES: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TSUJIMOTO, Masafumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IWASA, Fuyuki
TSUROUOKA, No. US20020164711Aluo
NAKAZATO, Hiroshi
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Result No.

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SEQUENCE DESCRIPTION: SEQ ID NO: 3: US-10-091-442-3
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US-09-140-719-3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 4
FILING DATE: 17-JUL-1992
                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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APPLICANT:
APPLICANT:
 FILING DATE: 04-MAR-199: ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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                                                FILING DATE: 17-JUL-
PRIOR APPLICATION DATA:
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                                                                                                                                     APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 19 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION:
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19; Conserva
                                                                                                                                                                                                                                                                                                                                                                                   22313-1404
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Application US/09140719
JS20010026931A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 001560-247
                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: Burns, Doa
P.O. Box 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YAMAICHI, KOZO
YAMAGUCHI, NO. US20010026931A1omi
VENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MIURA, Kenju
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IWASA, Fuyukı
TSUROUOKA, NO. US20010026931A1uo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                            IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ISHIDA, No. US20010026931A1uhiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUJIMOTO, Masafumi
                     04-MAR-1993
                                                                                                                     14-JUL-1993
                                                                                                                                                                                                                                           08-AUG-1998
                                                                                                                                                                                                                                                                                                                                          Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (703)
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                                                                                     JP 4-212305
                                                                                                                                     US 08/091,028
                                   JP 6-067339
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Pred. No. 6.8e-10;
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                                                                                                                                                                                                                                                                                            Version #1.30
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 19 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
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          ATTORNEY/AGENT INFORMATION:
NAME: McGowan, Malcolm K.
REGISTRATION NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                          COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
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19; Conserv
                                                                                                                                APPLICATION NUMBER: US 08/474,661 FILING DATE: 07-UN-1995 APPLICATION NUMBER: US 08/091,028 FILING DATE: 14-UL-1993 APPLICATION NUMBER: UP 4-212305 FILING DATE: 17-UL-1992
                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/10/091,442 FILING DATE: 07-Mar-2002. CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: P.O. Box 1404
CITY: Alexandría
                                                                                                  APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993
                                                                                                                                                                                                                                        APPLICATION NUMBER: US/09/140,719 FILING DATE: 08-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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linear
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TELECOMMUNICATION INFORMATION:
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            1 VERVDFTNHLEDTRRNINK 19
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                                                       100.0%;
                                                                                                                                                                                                                                 39,300
                                            0;
                                                                                                                                                                                                                        001560-247
                                            Score 100; DB 10;
Pred. No. 6.8e-10;
; Mismatches 0;
                                            Indels
                                                                 Length
                                                                  19;
                                            0;
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CORRESPONDENCE ADDRESS: KURIHARA, Tatsuya
YAWAICHI, KOZO
YAWAGUCHI, NO. US20020164711A1omi
OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
R OF SEQUENCES: 34 Application US/10091442 TSUROUOKA, No. US20020164711A1uo NAKAZATO, Hiroshi TSUJIMOTO, Masafumi MIURA, Kenju No. Doane, US20020164711A1uhiro Swecker & Mathis

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Patent No.
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Best Local Similarity
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                                                                                                               TELEFAX: (703) 836-2021 (NFORMATION FOR SEQ ID NO: 34:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/474,661
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/091,028
FILING DATE: 14-JUL-1993
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APPLICANT:
APPLICANT:
                                   SEQUENCE CHARACTERISTICS:
LENGTH: 380 amino acids
                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 39,300
REFERENCE/DOCKET NUMBER: 001560-247
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: JP 6-067339 FILING DATE: 04-MAR-1993 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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APPLICANT: YAMAICHI, KOZO
APPLICANT: YAMAGUCHI; NO. US20010026931A1omi
TITLE OF INVENTION: MEGAKARYOCYTE DIFFERENTIATION FACTOR
NUMBER OF SEQUENCES: 34
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APPLICATION NUMBER: JP 4-212305
FILING DATE: 17-JUL-1992
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 08-AU
                                                                                                                                                                                                                                                                                                     NAME: McGowan, Malcolm K. REGISTRATION NUMBER: 39,3
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US20010026931A1
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amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P.O. Box 1404
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TSUROUOKA, No. US20010026931Aluo
NAKAZATO, Hiroshi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 100; DB 9; ilarity 100.0%; Pred. No. 2.1e-08; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TSUJIMOTO, Masafumi
                                                                                                                                                                                          (703) 836-6620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-AUG-1998
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US-09-823-187-29
Sequence 29, Application US/09823187
Diblication No. US20030096952A1
GENERAL INFORMATION:
APPLICANT: Burgess, Catherine
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US-08-731-566-2
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                                                                                                                                                                                                                                                            US-08-731-566-2
                                                                                                                                                                                                          Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                    TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC COMPUTER:
COMPUTER: IBM PC COMPUTER:
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/731,566
PTI.ING DATE: 16-CCT-1996
                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: MG
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227.7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 02109-1775
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                       TOPOLOGY: L1
                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 17-OCT-1995
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: TOShihiko Hibino et al.
TITLE OF INVENTION: TWO NOVEL GENES FROM PSORIATIC EPIDERMIS:
TITLE OF INVENTION: PSORIASTATIN TYPE I AND PSORIASTATIN TYPE II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 60/013,755 FILING DATE: 20-MAR-1996
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                                                                                                                                131 VESVDFANAPEESRKKIN 148
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Pred. No.
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Pred. No. 2.1e-08;
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Gusev,

Vladimir Y

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US-09-823-187-29
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Best Local :
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                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                Publication No.
                                                                                                         APPLICANT:
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                         CURRENT APPLICATION NUMBER: US/09/823,187
CURRENT FILING DATE: 2001-03-29
PRIOR APPLICATION NUMBER: 60/193,339
                                                                            APPLICANT: Taupier, Raymond J
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAME
FILE REFERENCE: 15966-745
                                                                                                                                        APPLICANT: APPLICANT:
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TYPE: PRT
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                PRIOR FILING DATE:
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APPLICATION NUMBER: 60/195,088
ETITION NUMBER: 60/195,088
APPLICATION NUMBER: 60/193,205
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                                                                                                                                      Patturajan, Meera
Shimkets, Richard A
Spaderna, Steven K
                                                                                                                                                                                     Majumder, Kumud
Padigaru, Muralidhar
                                                                                                                                                                                                                      Liu, Xiaohong
                                                                                                                                                                                                                                                                                  Application US/09823187 No. US20030096952A1
                                                                                                                        Spytek, Kimberly
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Spaderna, Steven K
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Padigaru, Muralidhar
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Vladimir Y
                2000-03-30
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PRIOR
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PRIOR APPLICATION NUMBER: 60/193,339
PRIOR FILING DATE: 2000-03-30
                                 PRIOR FILING DATE: 2000-04-13
PRIOR APPLICATION NUMBER: 60/197,525
                                                                                                           PRIOR
                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/193,205 PRIOR FILING DATE: 2000-03-30
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                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Taupier, Raymond J
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING
FILE REFERENCE: 15966-745
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PRIOR FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/197,087
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PRIOR APPLICATION NUMBER:
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                                                       APPLICATION NUMBER: FILING DATE: 2000-04
                                                                                                                                                            APPLICATION NUMBER: 60/195,005
FILING DATE: 2000-04-06
                                                                                                           APPLICATION NUMBER: 60/196,556
                                                                                                                              FILING DATE:
                                                                                                                                               APPLICATION NUMBER:
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EILING DATE: 2000-04-05
APPLICATION NUMBER: 60/195,088
EILING DATE: 2000-04-06
APPLICATION NUMBER: 60/195,005
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APPLICATION NUMBER: 60/195,792
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10; Conservative
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Gusev, Vladimir Y
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Shimkets, Richard A
Spaderna, Steven K
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Padigaru, Muralidhar
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Pred. No. 3;
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PRIOR FILING DATE: 2000-03-30
PRIOR APPLICATION NUMBER: 60/193,205
PRIOR FILING DATE: 2000-03-30
PRIOR APPLICATION NUMBER: 60/195,343
PRIOR APPLICATION NUMBER: 60/195,088
PRIOR APPLICATION NUMBER: 60/195,088
                                                                                                                                                                                                                                                 PRIOR FILING DATE: 2000-04-06
PRIOR APPLICATION NUMBER: 60/195,792
PRIOR APPLICATION NUMBER: 60/196,556
PRIOR FILING DATE: 2000-04-11
PRIOR APPLICATION NUMBER: 60/197,081
PRIOR APPLICATION NUMBER: 60/197,081
PRIOR FILING DATE: 2000-04-13
PRIOR APPLICATION NUMBER: 60/197,525
PRIOR FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/197,087
PRIOR APPLICATION NUMBER: 60/197,087
PRIOR FILING DATE: 2000-04-14
NUMBER: 60/197,087
                                                                                                                                                                                                      SOFTWARE: PatentIn Ver. SEQ ID NO 28
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Best Local Similarity 50.0%;
Matches 9; Conservative
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                                                                                  Query Match
Best Local Similarity
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CURRENT FILING DATE: 2001-03-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Taupier, Raymond J
TITLE OF INVENTION: NOVEL PROTEINS AND NUCLEIC ACIDS ENCODING SAME
                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 103
SOFTWARE: Patentt
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131
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                   1 VERVDETNHLEDTRRNIN 18
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VESTDFANAPEESRKKIN 148
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Padigaru, Muralidhar
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Spaderna, Steven K
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                                                                  Conservative
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                                                                                  Score 46;
Pred. No.
                                                                    Mismatches
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PRIOR FILING DATE: 2000-05-12
PRIOR PPLICATION NUMBER: 09/611,419
PRIOR PPLICATION NUMBER: 09/61,419
PRIOR PPLICATION NUMBER: 60/133,865
PRIOR FILING DATE: 1999-05-12
PRIOR PPLICATION NUMBER: 60/133,866
PRIOR PPLICATION NUMBER: 60/133,866
PRIOR PPLICATION NUMBER: 60/133,867
PRIOR PPLICATION NUMBER: 60/133,867
PRIOR PPLICATION NUMBER: 60/133,867
PRIOR PPLICATION NUMBER: 60/133,867
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent No. US20020048763A1 GENERAL INFORMATION:
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Best Local
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                                                                                           APPLICANT: Rank, David R.
APPLICANT: Hanzel, David R.
APPLICANT: Hanzel, David R.
APPLICANT: Chen, Mensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FO
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
FILE REFERENCE: Acomica **A-1
CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
PRIOR FILING DATE: 2000-08-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: A33626-A 067252.0107
CURRENT APPLICATION NUMBER: US/09/910,186A
CURRENT FILING DATE: 2001-07-20
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PRIOR FILING DATE: 1999-05-12
PRIOR APPLICATION NUMBER: 60/133,869
                                                PRIOR APPLICATION NUMBER: GB 24263.6 PRIOR FILING DATE: 2000-10-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Penn, Sharron G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 1993-09-21
PRIOR FILING DATE:
                           PRIOR APPLICATION NUMBER: US 60/236,359
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APPLICATION NUMBER: 60/133,873
FILING DATE: 1999-05-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               41911, Application US/09864761
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2000-09-27
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APPLICATION NUMBER: PCT FILING DATE: 2001-01-30 APPLICATION NUMBER: PCT FILING DATE: 2001-01-30

PCT/US01/00667 L-30 PCT/US01/00664

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                                                                                                                                                                                                                                                                          Sequence 21, Application US/10073979 Publication No. US20030044905A1 GENERAL INFORMATION:
                                                                      SOFTWARE: PatentIn Ver.
SEQ ID NO 21
LENGTH: 123
TYPE: PRT
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                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/073,979 CURRENT FILING DATE: 2002-02-14
                                                                                                                                                                                                                       APPLICANT: Rosen et al. TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REFERENCE: PTZ31C1
                                                                                                                                            Prior Application removed - See file Wrapper NUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 49117
FEATURE:
NAME/KEY: misc_feature
LOCATION: (88)
                                                 ORGANISM: Homo sapiens
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FILING DATE: 2000-66-30
APPLICATION NUMBER: US 09/774,203
FILING DATE: 2001-01-29
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APPLICATION NUMBER: PCT/US01/00668
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00663
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/006662
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FILING DATE: 2001-01-30
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HIT: AV733491.1,
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FETAL LIVER, SIGNAL = 2.1
T: P00488, EVALUE 8.00e-21
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BONE MARROW, SIGNAL = 2.1
HEART, SIGNAL = 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADULT LIVER, SIGNAL = 4.2
HELA, SIGNAL = 2.1
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; FEATURE:
; NAME/KEY: SITE
; LOCATION: (88)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids US-09-764-898-242
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US-09-764-891-4883
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                                                         Best
                                                                       Query Match
                                                                                                                                                                                                          SEQ ID NO 242
LENGTH: 123
                                                                                                                                                                                                                                                                                                                                                       Patent No. US20020090673A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                 Sequence 242, Application US/09764898
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LENGTH: 123
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GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                           APPLICANT: Rosen et al. TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies FILE REFERENCE: PJZ01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Rosen et al.
TITLE OF INVENTION: Nuc
FILE REFERENCE: PC006
                                                                                                                                                                                                                                                   Prior application data removed NUMBER OF SEQ ID NOS: 311
                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/764,898 CURRENT FILING DATE: 2001-01-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Prior application data removed - consult PALM NUMBER OF SEQ ID NOS: 10231 SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                       SOFTWARE: PatentIn Ver.
                                                                                                                                                                             ORGANISM: Homo
                                                                                                                                                                                              TYPE: PRT
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LOCATION: (88)
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RESULT 15

RESULT 15

Sequence 355, Application US/10157031

SERVAL INFORMATION:
PRICIART Entrova, A. V.
APPLICANT Entrova, A. V.
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| Molecule type: protein Molecule type: protein Molecule type: protein Comment: This antigen probably acts as a prote Genetics: Genetics: Genetics: Genetics: Genetics: Genetics: Genetics: Genetics: Genetics: Genetics: GB:625364; OMIM:600517 Map position: 18q21.3-18q21.3 Introns: 55/3; 74/3; 117/3; 157/1; 204/3; 256/Superfamily: antithrombin III Keywords: cysteine proteinase inhibitor; glycology, 93,171,376/Binding site: carbohydrate (Asn) 354/Inhibitory site: Ser (cathepsin L) #status | 390 <sil> 19556; NID:91276435; PII 19556; NID:91276435; PII Sekiguchi, K.; Kato, H mun. 181, 51-58, 1991 cinoma antigen is a new cinoma antigen is a new ; MUID:92068241; PMID:11 356, 'A', 358-390 <sum1> 896; NID:9239551; PIDN:</sum1></sil> | Residues: 1-390 <sch1> Cross-references: EMBL:U19568; GB:U19558; NID:gll Accession: 138200 Status: nucleic acid sequence not shown Molecule type: DNA Residues: 1-117 <sch2> Cross-references: EMBL:U19562; NID:g897835; PIDN: Silverman, G.A. bmitted to the EMBL Data Library, January 1995 Reference number: G07968 Accession: G01631 Status: preliminary; translated from GB/EMBL/DDBJ Molecule type: mRNA</sch2></sch1> | antigen.1 - human (man) uence_revision 23-Feb-1996 200; G01631; JT0966; JT0967 k, C: Fish, K.E.; Miller, k, C.; Fish, K.E.; Miller, S.A. 92, 3147-3151, 1995 nase inhibitor locus at 189 00; MUID:95241462; PMID:772 equence not shown | 41.5 41.5 349 2<br>41 41.0 288 2<br>41 41.0 317 2<br>41 41.0 319 2<br>41 41.0 347 2 | 30 43 43.0 363 2 F71881 31 43 43.0 468 2 F84686 32 43 43.0 732 1 EKHUX 33 43 43.0 1111 2 A86922 34 43 43.0 1461 2 T26327 35 43 43.0 1619 2 T18499 36 42.5 42.5 409 2 A87495 37 42 42.0 399 2 E71188 38 42 42.0 399 2 E71188 38 42 42.0 589 2 S71954 40 42 42.0 602 2 S23991 40 42 42.0 957 2 H69141 |
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| inase inhibitor to modulate the host  grotein (covalent) #status predicted predicted                                                                                                                                                                                                                                                                                                                                                                                                                    | D:g1052869<br>member of the serine protease inhib<br>358219<br>AAB20405.1; PID:g239552                                                                                                                                                          | 72085<br>AAA86316.1; PID:g897844                                                                                                                                                                                                                                                                                                                                                                                             | #text_change 26-May-2000<br>E.; Pena, J.C.; Treter, S.D.; Hui,<br>21.3 contains a tandem duplication                                                                                                                                   | 9.05.1                                                                              | probable flagellar hypothetical prote protein glutamine probable arabinosy hypothetical prote hypothetical prote hypothetical prote hypothetical prote enactions brothetical prote grandsspina binding conjugative transf hypothetical prote                                                        |

Query Match Best Local Similarity

50.0%;

Score 50; DB 2; Pred. No. 3.3;

Length 390;

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cholesterol 7alpha-monooxygenase C;Species: Oryctolagus cuniculus C;Date: 14-Feb-1997 #sequence_rev C;Accession: 146701 R;Kai, M.; Eto, T.; Kondo, K.; Se J. Lipid Res. 36, 367-374, 1995
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T27755
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A;Authors: Smith, H.O.; Venter, J.C.

A;Title: Genomic sequence of a Lyme disease spirochaete, Borrelia burgdorferi.

A;Reference number: A70100; MUID:98065943; PMID:9403685
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A; Cross-references: GB: AE001164; GB: AE000783;
A; Cross-references: GB: AE01164; GB: AE000783;
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A; Introns:
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                                                                                                             146701
                                                                                                                            RESULT 4
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                       Setoguchi,
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                                                     (EC 1.14.13.17) - (domestic rabbit) vision 14-Feb-1997
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                       Higashi,
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                                                                                          rabbit
                                                      #text_change 04-Mar-2000
                                                                                                                                                                                                                                                                                                                 411/3
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                       Maeda,
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   R; Nishimoto, M.; Go
J. Biol. Chem. 266,
A; Title: Structural
                   A;Cross-references: GB:J05509; NID:g203204; PII R;Nishimoto, M.; Gotoh, O.; Okuda, K.; Noshiro, J. Biol. Chem. 266, 6467-6471, 1991
                                                                     A; Molecule type: mRNA
A; Residues: 1-503 <LIA>
                                                                                                        A; Reference number: A; Accession: A37071
                                                                                                                                     A:Cross-references: GB:X17595; NID:g57
R:Li, Y.C.; Wang, D.P.; Chiang, J.Y.L.
J. Biol. Chem. 265, 12012-12019, 1990
A:Title: Regulation of cholesterol 7al
                                                                                                                                                                                                                                          A;Title: Molecular cloning of cDNA for cholesterol 7alpha-hydroxylase A;Reference number: S06632; MUID:90033362; PMID:2806567 A;Accession: S06632
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A35376
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A; Residues: 1-503 < NOS1>
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                                                                                                                                                                                                                           A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                             A;Cross-references: GB:J05460; NID:g203455; PIDN:AAA03649.1; R;Noshiro, M.; Nishimoto, M.; Morohashi, K.I.; Okuda, K.
                                                                                                                                                                                                                                                                                                                                                                                A; Accession: A36450
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A;Residues: 1~503 <JE
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A;Gene: CYP7
C;Superfamily: human cytochrome P450 CYP7Al; cytochrome P450 homology C;Superfamily: human cytochrome P450 metalloprotein; oxidoreductase; C;Keywords: chromoprotein; heme; 1ron; metalloprotein; oxidoreductase; F;279-463/Domain: cytochrome P450 homology <P45>
F;441/Binding site: heme iron (Cys) (axial ligand) #status predicted
                                                                                                                                                                                                                                                                               A;Cross-references: GB:L10754; NID:g437659; PIDN:AAA74382.1; C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                    A;Title: Synchronous circadian rhythms of mRNA levels and activities A;Reference number: I46701; MUID:95271192; PMID:7751825 A;Accession: I46701
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                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
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                                                                                   l Similarity
10; Conserv
DFTLHLEDGSYNIRK
                                        DFTNHLEDTRRNINK
                                                                                     Conservative
                                                                                                     47.0%;
66.7%;
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Mismatches
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J. Biol. Chem. 265, 10036-10041, 1990
A;Title: Rat liver cholesterol 7alpha-hydroxylase. Pretranslational regulation
A;Reference number: A36450; MUID:90277612; PMID:1693613 C;Date: 30-Jun-1993 #sequence\_revision 30-Jun-1993 #text\_change 21-0;Accession: A35376; A35609; A36450; S06632; A37071; A38736; S27206 R;Jelinek, D.F.; Andersson, S.; Slaughter, C.A.; Russell, D.W. J. Biol. Chem. 265, 8190-8197, 1990 A;Title: Cloning and regulation of cholesterol 7alpha-hydroxylase, 1A;Reference number: A35376; MUID:90243699; PMID:2335522 A;Accession: A35376 A; Molecule type: DNA A; Residues: 1-26 <JEL2> R:JOLINEK, D.F.; RUSSELL, D.W.
Biochemistry 29, 7781-7785, 1990
A;Tille: Structure of the rat gene encoding
A;Reference number: A35609; MUID:91084435; P A; Cross-references: GB:J02926 R; Noshiro, M.; Nishimoto, A;Residues: 1-503 <JEL1> A;Cross-references: GB:J05430; holesterol 7alpha-monooxygenase (EC 1.14.13.17)
,Alternate names: cholesterol 7alpha-hydroxylase, Species: Rattus norvegicus (Norway rat) Okuda, NID:g203792; PIDN:AAA41041.1; ~ g cholesterol PMID:2261433 rat 7alpha-hydroxylase PID:g203793 the rate-limiting for Ci

of cholesterol 7alpha-hydroxylase in A37071; MUID:90307735; PMID:1694852

the

liver. Cloning,

sequenci

NID:957535; PIDN:CAB57878.1;

PID:g6018697

PID: g203456

from

rat

analysis

of.

the gene

encoding

rat

cholesterol alpha-hydroxylase

PIDN: AAA40839.1; 3

PID: 9203205

PID: g181319

human cholesterol

PID:9553228

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RESULT 7

JH0659

cholesterol 7alpha-monooxygenase (EC 1.14.13.17) chain 1 - human
cholesterol 7alpha-monooxygenase (EC 1.14.13.17) chain 1 - human
cholesterol 7alpha-monooxygenase (EC 1.14.13.17) chain 1 - human
cholesterol 7alpha-monooxygenase; cytochrome P450, subfamily VIIA
C:Species: Homo sapiens (man)
C:Species: Homo sapiens (man)
C:Date: 30-Jun-1993 #text_change 03-Mar-2000
C:Accession: S29818; JH0659; S11051; A42201; A54310
R:Nishimoto, M.; Noshiro, M.; Okuda, K.
Biochim. Biophys. Acta 1172, 147-150, 1993
A:Title: Structure of the gene encoding human liver cholesterol 7alpha-hydroxylase.
A:Reference number: S29818; MUID:93176797; PMID:8439551
A:Accession: S29818; MUID:93176797; PMID:8439551
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A54779
Cholesterol 7alpha-monooxygenase (EC 1.14.13.17) - mouse
C;Species: Mus musculus (house mouse)
C;Date: 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
C;Accession: A54779
C;Accession: A54779
C;Accession: A54779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: CYP7
C;Superfamily: human cytochrome P450 CYP7Al; cytochrome P450 homology C;Keywords: chromoprotein; heme; iron; metalloprotein; oxidoreductase; F;282-466/Domain: cytochrome P450 homology <P45>
F;444/Binding site: heme iron (Cys) (axial ligand) #status predicted
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C;Superfamily: human cytochrome P450 CYP7A1; cytochrome P450 homology
C:Keywords: cholesterol metabolism; chromoprotein; electron transfer;
F;282-466/Domain: cytochrome P450 homology <P45>
F;444/Binding site: heme iron (Cys) (axial ligand) #status predicted
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Blochim. Blophys. Acta 1132, 337-339, 1992
A;Title: Cloning and 5'-flanking sequence of a rat cholesterol 7alpha-hydroxylase A;Reference number: S27206; MUID:93041942; PMID:1420318
A;Accession: S27206
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A;Title: Structure of the mouse cholesterol 7alpha-hydroxylase A;Reference number: A54779; MUID:94375022; PMID:8088795
A;Accession: A54779
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A; Residues: 1-26 <CHI>
A; Residues: 1-26 <CHI>
A; Cross-references: GB:Z14108; GB:S48135; NID:955835; PIDN:CAA78481.1; PID:955836
C; Comment: This liver microsomal enzyme catalyzes the conversion of cholesterol to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Reference number: A; Accession: A38736
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A; Residues: 1-503 <TZU>
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Pred. No.
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13;
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S39399
                                                                                 A;Title: Genomic cloning, se
A;Reference number: S39399;
A;Accession: S39399
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A;Map position: 8011-8012
A;Introns: 27/2; 107/3; 303/2; 347/1; 405/3
A;Introns: 27/2; 107/3; 303/2; 347/1; 405/3
C;Superfamily: human cytochrome P450 CYP7A1; cytochrome P450 homology C;Keywords: cholesterol metabolism; chromoprotein; electron transfer; F;282-466/Domain: cytochrome P450 homology <CYP>
F;444/Binding site: heme iron (Cys) (axial ligand) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross references: GB:M89647; GB:J05363; NID:g180469; PIDN:AAA58423.1; A;Note: sequence extracted from NCBI backbone (NCBIN:89078, NCBIP:89079) R;Wang, D.P.; Chiang, J.Y. Genomics 20, 320-323, 1994 Genomics 20, 320-323, 1994 A;Title: Structure and nucleotide sequences of the human cholesterol 7 a A;Reference number: A54310; MUID:94292222; PMID:8020987 A;Accession: A54310
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                                                                                                                                                            C; Accession: S39399
R; Crestani, M.; Galli, C
R; Chestani, Biophys.
                                                                                                                                                                                                                                      cholesterol 7alpha-monooxygenase (EC 1.14.13.17)
N;Alternate names: cholesterol 7alpha-hydroxylase
C;Specles: Cricetulus griseus (Chinese hamster)
C;Date: 07-Oct-1994 #sequence_revision 01-Dec-1995
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Biochemistry 31, 2539-2544, 1992
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A;Residues: 1-346,'N',348-384,'S',386-504 <NOS>
A;Cross-references: GB:M93133
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A; Cross-references: EMBL:L04633
R; Karam, W.G.; Chiang, J.Y.L.
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A; Cross-references: GDB:
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A; Residues: 1-504 < KAR>
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g, sequencing, and a
399; MUID:94029018;
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1 7 alpha-hydroxylase
PMID:1610352
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Ride Zeeuw, C.T.; Hooyenston, Ride Zeeuw, C.T.; Hooyenston, Reuron 19, 1187-1199, 1997

A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a novel brain specific of A.Title: CLIP-115, a no
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A; Residues: 1-504 <CRE>
A; Residues: 1-504 <CRE>
A; Cross-references: GB:L04690; NID:g431016; PIDN:AAA03751.1; PID:g4040
C; Genetics: 27/2; 107/3; 303/2; 347/1; 405/3
C; Superfamily: human cytochrome P450 CYP7A1; cytochrome P450 homology
C; Keywords: chromoprotein; heme; iron; metalloprotein; oxidoreductase;
F; 282-466/Domain: cytochrome P450 homology <P45>
F; 444/Binding site: heme iron (Cys) (axial ligand) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cytoplasmic linker protein CLIP-115 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 11-Jan-2000 #sequence_revision 11-Jan-2000
C;Accession: T42734
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A;Title: The murine CYLN2 gene: genomic organisation, chromosome localisation at A;Reference number: Z22240; MUID:99017971; PMID:9799601
A;Accession: T42720
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A; Residues: 1-104
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C;Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 21-Jul-2000
                                                                                          A; Description:
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A;Experimental source: strain 129
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A; Residues: 1-1046 <HOO>
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                                                              to operate in dendritic lam
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A; Gene: GDB:SCCA2; PII1
A; Cross-references: GDB:636556; OMIM:600518
A; Map position: 18q21.3-18q21.3
A; Introns: 55/3; 74/3; 117/3; 15/71; 204/3; C; Superfamily: antithrombin III
C; Keywords: 91ycoprotein; serine proteinase F; 1-22/Domain: signal sequence #status predi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N;Alternate names: proteinase inhibitor 11 (PII1); squam (;Species: Homo sapiens (man) (;Species: Homo sapiens (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince) (pince)
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A;Residues: 7-351,'V',353-384 <BAR>
A;Cross-references: EMBL:X89015; NID:g887464;
                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: EMBL:U19576; GB:U19569; NID:g852466 R;Barnes, R.C.; Worrall, D.M. FEBS Lett. 373, 61-65, 1995 A;Title: Identification of a novel human serpin gene; C. A;Reference number: S66675; MUID:96013887; PMID:7589435
                                                                                                                                                                                                                            C; Genetics:
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A; Map position: 18q21.3-18q21.3
C; Superfamily: antithrombin III
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C;Species: Homo sapiens (man)
C;Date: 23-Feb-1996 #sequence_revision 23-Feb-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                A; Accession: S66675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
A; Residues: 1-390 <SCH>
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Science 263, 526-529, 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Gene: GDB: PI5
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A; Residues: 1-375 <RES>
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   Keywords: glycoprotein; serine proteinase inhibitor; 1-22/Domain: signal sequence #status predicted <SIG
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                                                                                            157/1; 204/3; 256/3
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ovtl protein - nematode (Onchocerca volvulus)

N;Alternate names: myosin-like antigen
C;Species: Onchocerca volvulus
C;Deceles: Onchocerca volvulus
C;Deceles: Onchocerca volvulus
C;Deceles: Onchocerca volvulus
C;Deceles: Onchocerca volvulus
C;Deceles: Onchocerca volvulus
C;Dete: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 20-Jun-2000
C;Accession: 743214; A44939; A54513; S27825
A;Title Collecular cloning of a gene expressed during early embryonic development in Ond
A;Reference number: Z22341; MUID:95287898; PMID:7770081
A;Coss: Teference number: A44931; NID:95287898; PMID:7770081
A;Cross: Teferences: EMBL:012681; NID:9530824; PID:9530825; PIDN:AAA80009.1
A;Experimental source; specific host Homo sapiens
R;Erondu, N. E.; Donelson, J. E.
A;Cross: Teferences: EMBL:012681; NID:9530824; PID:9530825; PIDN:AAA80009.1
A;Experimental source; specific host Homo sapiens
R;Erondu, N. E.; Donelson, J. E.
A;Cross: Teferences: A44939; MUID:90301142; PMID:2194123
A;Accession: A44939; MUID:90301142; PMID:2194123
A;Accession: A44939; MUID:90301142; PMID:2194123
A;Accession: A34939; MUID:90301142; PMID:2194123
A;Cross: Teferences: GB:M30398
A;Cross: Teferences: GB:M30398
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A;Cross: Teferences: GB:M30398
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A;Cross: Teferences: GB:M30398
A;Cross: Teferences: GB:M30398
A;Cross: Teferences: GB:M30398
A;Cross: Teferences: GB:M30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Superfamily: tetanus C; Keywords: neurotoxin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R:Campbell, K.; Collins, M.D.; East, A.K.
Biochim. Biophys. Acta 1216, 487-491, 1993
A:Title: Nuclectide sequence of the gene coding for Clostridium A:Reference number: S39791; MUID:94092745; PMID:8268233
A:Accession: S39791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neurotoxin - Clostridium botulinum C;Specles: Clostridium botulinum C;Date: 07-Oct-1994 #sequence_revision C;Accession: S39791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
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F;65,93,170,376/Binding site: carbohydrate (Asn) (covalent) #status
F;354/Inhibitory site: Leu (unidentified proteinase) #status predict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Residues: 1-1297 < CAM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status:
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9; Conserv
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nilarity 50.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 46;
Pred. No.
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Pred.
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Search completed: July 11, Job time: 5.9316 secs

2003,

12:00:36

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A;Residues: 733-866 <DON>
A;Cross-references: GB:J03995; NID:g159874; PIDN:AAA29412.1; PID:g159875
R;Ngozi, E.; Erondu, N.E.; Donelson, J.E.
submitted to the EMBL Data Library, April 1990
A;Description: Characterization of a myosin-like antigen from Onchocerca volvulus.
A;Reference number: S27825
A;Accession: S27825
                                                                                                                                                                                                 A;Cross-references:
C;Genetics:
                                                                                                                                                                                                                                                                                                              C;Accession: D64427

R;Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blak R;Bult, C.J.; White, O.; Olsen, G.J.; Zhou, L.; Fleischmann, R.D.; Sutton, G.G.; Blak ; Reich, C.I.; Overbeek, R.; Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, Ison, J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts, K.M.; Hurst, M.A. Science 273, 1058-1073, 1996

A;Authors: Kaine, B.P.; Borodovsky, M.; Klenk, H.P.; Fraser, C.M.; Smith, H.O.; Woese A;Title: Complete genome sequence of the methanogenic archaeon, Methanococcus jannasc A;Reference number: A64300; MUID:96337999; PMID:8688087

A;Accession: D64427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein MJ1021 - Methanococcus jannaschii
C;Species: Methanococcus jannaschii
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jul-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽.
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C;Keywords: leucine zipper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: mRNA
A;Residues: 733-874,'E',876-916,'S',918-1038,1040-1047,'S',1049-1283,'E',1285-1347,'E
A;Cross-references: EMBL:M30398; NID:g159876; PIDN:AAA29413.1; PID:g159877
밁
                                   ρ
                                                                                                                                                                                 A; Map position:
                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-163 <BUL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C; Genetics:
                                                                                                                                                                                                                                                                                         A; Status: preliminary; nucleic acid sequence not shown; translation
                                                                                       Best Loc
Matches
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90 VEKID-TEDLESVRWNINK 107
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                                          1 VERVDFTNHLEDTRRNINK
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                                                                                         Conservative
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Pred. No.
                                          19
                                                                                                          Score 45.5;
Pred. No. 6
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                                                                                         Indels
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GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 11, 2003, 11:43:41 ; Search time 1.81705 Seconds (without alignments) 433.698 Million cell updates/sec

Title: Perfect score: Sequence: US-10-091-442-3 100 1 VERVDFTNHLEDTRRNINK 19

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

112892 seqs, 41476328 residues

Searched:

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt\_40:\*

Database :

SUMMARIES

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

| 33                 | 32         | 31                 | 30         | 29         | 28         | 27         | 26         | 25         | 24         | 23         | 22         | 21       | 20       | 19         | 18         | 17         | 16         | 15        | . 14       | 13                 | 12         | 11         | 10         | 9          | œ        | 7          | o                  | ر.<br>ت            | 4          | w          | N           | ,,         | NO.         | Result |   |
|--------------------|------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|----------|------------|------------|------------|------------|-----------|------------|--------------------|------------|------------|------------|------------|----------|------------|--------------------|--------------------|------------|------------|-------------|------------|-------------|--------|---|
| 41                 | 41         | 41                 | 41         | 42         | 42         | 42         | 43         | 43         | 43         | 44         | 44         | 44       | 44       | 44.5       | 45         | 45.5       | 46         | 46        | 46         |                    |            | 46         | 47         | 47         | 47       | 47         | 47                 | 47.5               | 48.5       | 49         | 50          | 100        | Score       |        |   |
| 41.0               | 41.0       | ř                  | ř          | Ñ          | Ñ          |            | ū          | Ü          | u.         | 44.0       | 4          | 44.0     |          | 44.5       | 45.0       | 45.5       | 46.0       | 46.0      | 46.0       | 46.0               | ٠          | 46.0       | 47.0       | 47.0       | 47.0     | 47.0       | 47.0               | 47.5               | 48.5       | 49.0       | 50.0        | 100.0      | Match       |        | P |
| 376                | 285        | 215                | 203        | 602        | 592        | 392        | 1111       | 731        | 505        | 1147       | 555        | 501      | 483      | 393        | 391        | 163        | 2022       | 1296      | 390        | 375                | 375        | 375        | 504        | 504        | 503      | 503        | 501                | 207                | 210        | 1169       | 390         | 380        | Length      |        |   |
| <u>_</u>           | Н          | ب                  | $\vdash$   | ш          | ب          | -          | _          | Н          | 1          | 1          | <b>—</b>   | _        | -        | -          | -          | ۳          | ب          | _         |            | -                  | Н          | Н          | _          | ۲          | <b></b>  | _          | _                  | ب                  | ۲          | ۲          | -           | _          | - B         |        |   |
| PTI6_HUMAN         | STAR_BRARE | HMUO_CORDI         | U172_DROME | TRAN_ECOLI | RB56_HUMAN | SB11_HUMAN | EMBA_MYCLE | F13A_HUMAN | CSC1_DROME | KIN2_YEAST | MASY_PICAN | CP7A_PIG | MM20_PIG | CYP7_YEAST | SB13_HUMAN | YA21_METJA | ANT1_ONCVO | BXG_CLOBO | SCC2_HUMAN | MASP_RAT           | MASP_MOUSE | MASP_HUMAN | CP7A_HUMAN | CP7A_CRIGR | CP7A_RAT | CP7A_MOUSE | CP7A_RABIT         | NOC4_MOUSE         | NOC4_HUMAN | EX5B_BORBU | SCC1_HUMAN  | SPB7_HUMAN | ID          |        |   |
| P35237 homo sapien |            | P71119 corynebacte |            | esch       | homo       | homo sapie |            |            |            |            | ρiq        |          |          |            | œ          |            | 0          | _         |            | P70564 rattus norv | mus n      |            | _          |            |          | -          | P51542 oryctolagus | 070378 mus musculu | homo sapi  | borre      | 08 homo sap |            | Description |        |   |

| 45          | 44          | 43          | 42          | 41          | 40          | 39          | 38          | 37          | 36          | 35          | 34         |  |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|--|
| 40          | 40          | 40.5        | 40.5        | 40.5        | 41          | 41          | 41          | 41          | 41          | 41          | 41         |  |
| 40.0        | 40.0        | 40.5        | 40.5        | 40.5        | 41.0        | 41.0        | 41.0        | 41.0        | 41.0        | 41.0        | 41.0       |  |
| 289         | 171         | 1019        | 842         | 578         | 2364        | 1995        | 1161        | 728         | 405         | 379         | 378        |  |
| ۲           | 4.          | ب           | ب           | -ب          | ب           | _           | ب           | ш           | ۲           | <u>۔</u>    | -          |  |
| STX3_HUMAN  | VPF2_BPP2   | ST31_HUMAN  | SYA_CAMJE   | YDEM_CAEEL  | SPCO_HUMAN  | YCX7_CHLRE  | DP3A_BUCAI  | YMX6_CAEEL  | SB12_HUMAN  | ILEU_HUMAN  | PTI6_BOVIN |  |
|             |             |             |             |             |             |             |             |             |             |             |            |  |
|             |             |             | Q9p105      |             |             |             |             |             |             |             |            |  |
| homo sapien | bacteriopha | homo sapien | campylobact | caenorhabd1 | homo sapien | chlamydomon | buchnera ap | caenorhabdi | homo sapien | homo sapien | bos taurus |  |

## ALIGNMENTS

| DR DR DR DR                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RESULT<br>SPB7_H |
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| D88975; HAA31232.1; AP027866; AAC64506.1 P05619; 1HLE. ; HGNC:13902; SERPINE 603357;; Serpin; 1. ; SM00093; SERPIN; 1. ; TE; PS00284; SERPIN; 1. | SPBY_HIMAN STANDARD: PRT: 380 AA. O75635; 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 15-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2002 (Rel. 41, Last sequence update) 16-JUN-2003 (Rel. 41, Last sequence update) 16-JUN-2003 (Rel. 41, Last sequence update) 16-JUN-2003 (Rel. 41, Last sequence update) 16-JUN-2003 (Rel. 41, Last sequence update) 16-JUN-2003 (Rel. 41, La | 1<br>UMAN        |

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SEQUENCE
                                                                                                                                                                             modified and this statement is not
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01-APR-1993 (Rel. 25, Created)
15-JUN-2002 (Rel. 41, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Squamous cell carcinoma antigen 1 (SCCA-1) (Protein
SERPINB3 OR SCCA1 OR SCCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Suminami Y., Kishi F., Sekiguchi "Squamous cell carcinoma antigen protease inhibitors.";
                                                                                                                                                                    entities
                                                                                                                                                                                                                                                                                                                                                        Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=95241462; PubMed=7724531;
Schneider S.S., Schick C., Fish K.E.,
Treter S.D., Hul S.M., Silverman G.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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P29508; Q9
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                       duplication
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biochem. Biophys.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., MEDLINE-92068241; Po
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                        serine proteinase inhibitor locus at 18q21.3 contains plication of the human squamous cell carcinoma antigen oc. Natl. Acad. Sci. U.S.A. 92:3147-3151(1995).
                                                                                                                                                       send
                                                                                                                                                                                                                                                   mitted (MAR-2001) to the EMBL/GenBank/DDBJ databases. FUNCTION: MAY ACT AS A PROTEST INHIBITOR TO MODULATE THE HOST IMMUNE RESPONSE AGAINST TUMOR CELLS. SUBCELLULAR LOCATION: Cytoplasmic. TISSUE SPECIFICITY: SQUAMOUS CELLS. DEVELOPMENTAL STAGE: ITS EXPRESSION IS CLOSELY RELATED TO CELLUL DIFFERENTIATION IN BOTH MORMAL AND MALIGNANT SQUAMOUS CELLS. SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                      SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
1019565 AAAB6317.1;

1019556 AAAB6317.1;

1019558 AAAB6317.1;

1019559 AAAB6317.1;

1019560 AAAB6317.1;

1019562 AAAB6317.1;

1019567 AAAB6317.1;

1019567 AAAB6317.1;

1019567 AAAB6317.1;

1019569 AAAB6316.1;

1019559 AAAB6316.1;

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E 347 348 REACT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PubMed=1958219;
                                                                                                                                                     license@isb-sib.ch).
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Pred. No. 1.2e-08;
Pred. No. 1.2e-08;
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30-MAY-2000 (Rel. 39, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
Exodeoxyribonuclease V beta chain (EC 3.1.1)
RECE OR BB0633.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

STRAIN-ATCC 35210 / B31;

MEDLINE-98065943; PubMed-9403685;

Fraser C.M., Casjens S., Huang W.M., Sutton G.G., Clayton R.A.,
Lathigra R., White O., Ketchum K.A., Dodson R., Hickey E.K., Gwin
Dougherty B., Tomb J.-F., Fleischmann R.D., Richardson D.,
Peterson J., Kerlavage A.R., Quackenbush J., Salzberg S., Hanson
van Vugt R., Palmer N., Adams M.D., Gocayne J.D., Weidman J.,
Utterback T., Watthey L., McDonald L., Artiach P., Bowman C.,
Garland S., Fujii C., Cotton M.D., Horst K., Roberts K., Hatch B.
Smith H.O., Venter J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Serpin; S
ACT_SITE
CONFLICT
                                                                                         use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See hor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced throubetween the Swiss Institute of Bioinformatics and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Borrelia burgdorferi (Lyme Bacteria; Spirochaetales; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EX5B_BORBU
O51578;
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Pfam; PF00079; serpin; 1.
SMART; SM00093; SERPIN; 1.
PROSITE; PS00284; SERPIN;
                                                                                                                                                                      the European Bioinformatics Institute. The by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Genomic sequence of a Lyme disease spirochaete, Borrelia burgdorferi.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nature 390:580-586(1997)
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HSSP; P01008; 1ATH.
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                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: REQUIRED FOR EFFICIENT DNA REPAIR; IT CATALYZES THE UNWINDING OF DOUBLE-STRANDED DNA AND IT STIMULATES LOCAL GENERIC RECOMBLINATION. ALL OF THESE ACTIVITIES REQUIRE CONCOMITANT HYDROLYSIS OF ATP (BY SIMILARITY).

CATALYTIC ACTIVITY: Exonucleolytic cleavage (in the presence CATALYTIC ACTIVITY: Exonucleolytic cleavage (in the presence CATALYTIC ACTIVITY: DESCRIPTION OF ATP) in either 5'- to 3'-or 3'- to 5'-direction to yield 5'-
                                                                                                                                                                                                                                                                                                                            phosphooligonucleotides.
SUBUNIT: CONSIST OF THRE
(BY SIMILARITY).
                                                                                                                                                                                                                                                                                                       SIMILARITY: BELONGS
                                               AE001164; AAC66981.1;
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357
390 AA;
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                                                                                                                                                                                                                                                                                                                                                    THREE SUBUNITS;
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E5F27F986C752CFA CRC64;
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3.1.11.5).
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MBL outstation -
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InterPro;
Pfam; PFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pfam; PF00580; UvrD-helicase; 1.
TIGRFAMs; TIGR00609; recB; 1.
Hydrolase; Nuclease; Endonuclease; Phydrolase; Phydrolase; Endonuclease; DNA repair; Complete proteome.
NP_BIND 18 25 ATP (POTENTIAL).
NP_BIND 18 25 ATP (POTENTIAL).
                                                                                                                        EMBL; AF005888; AAB94489.1; -. EMBL; AF005889; AAB94820.1; -. EMBL; BC005886; AAH05886.1; -. EMBL; BC001472; AAH01472.1; -.
                                                                                                                                                                                           the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                      gene,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-CCT-2001 (Rel. 40, Created)
16-CCT-2001 (Rel. 40, Last sequence update)
15-CUN-2002 (Rel. 41, Last annotation update)
Neighbor of COX4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOC4_HUMAN
043402;
                                                                                                                                                                                                                                                                                            Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.
-!- TISSUE SPECIFICITY: Expressed in liver, pancreas, heart, kidney, brain, skeletal muscle, and placenta. Expression are highest in pancreas and moderate in heart, skeletal materials.
                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Retina, and placenta;
MEDLINE-99269920; PubMed-1037626;
Bachman N.J., Wu W., Schmidt T.R., Gr
"The 5-prime region of the COX4 gene
                                                                                                               Genew;
                                                                                                                                                                                                                                                                                                                                             Strausberg R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOC4 OR COX4AL
                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                          Mamm. Genome 10:506-512(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                        InterPro; IPR005366; UPF0172.
                                                                                                                                                                                                                                                                                                                                                         rissue-Placenta;
                                                                                                                                                                                                                                                                         SIMILARITY: BELONGS TO THE UPF0172 (NOC4) FAMILY.
                                                                                                                                                                                                                                      SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                    604886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                                                              PF03665;
                                                                                                           HGNC:7864; NOC4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
8; Conserv
                                 Similarity
                                                                                                                                                                                                                                                                                      placenta.
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 VDFTNHLEDTRRN----INK 19
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IPR000212; UvrD-helicase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1169 AA;
                                                                   210
                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                 UPF0172; 1.
AA; 23773 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                 48.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                137828 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 49; DB Pred. No. 5.8; 6; Mismatches
                    <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
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                                 Score 48.5;
Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                 41367FDD98769250 CRC64;
                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL).
B61D63C1C959B91F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                              Grossman L.I., Lomax M.I.; ne contains a novel overlapping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                210
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8;
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                                         Length 210;
                      Indels
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muscle,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                              U1-OCT-1996 (Rel. 34, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Cytochrome P450 7A1 (Cholesterol 7-alpha-monooxygenase)
(EC 1.14.13.17) (Cholesterol 7-alpha-hydroxylase).
CYP7A1 OR CYP7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOC4_MOUSE
070378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CP7A_RABIT STANDARD;
P51542;
01-0CT-1996 (Rel. 34, Created)
01-0CT-1996 (Rel. 34, Last seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a copyright the EMBL the European Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and foentitles requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-C57BL/6J; TISSUE-Kidney;
MEDLINE-99269920; PubMed-10337626;
Bachman N. J., Wu W., Schmidt T.R., Grossman L.I., Lome
"The 5-prime region of the COX4 gene contains a novel
gene, NOC4.";
"Synchronous circadian rhythms of mRNA levels cholesterol 7 alpha-hydroxylase in the rabbit J. Lipid Res. 36:367-374(1995).
                                                                                                        STRAIN-New Zealand white;
MEDLINE-95271192; PubMed-
Kai M., Eto T., Kondo K.,
                                                                                                                                                                                                                                                                                         Oryctolagus cuniculus (Rabbit).
Oryctolagus cuniculus (Rabbit).
Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; AF052621; AAC12933.1; -. MGD; MGI:1343095; Noc4. InterPro; IPR005366; UPF0172.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mamm. Genome 10:506-512(1999).
-!- SIMILARITY: BELONGS TO THE UPF0172 (NOC4) FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                   Setoguchi T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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15-JUN-2002 (Rel.
Neighbor of COX4.
                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                              NCBI_TaxID=9986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PF03665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 VDFDNHLDDIRSDWTNPEINK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              184 VDFDNHLDDIRNDWTNPEINK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 VDFTNHLEDTRRN----INK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                             192; PubMed=7751825;
., Kondo K., Setorno
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AA; 23348 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
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Rodentia;
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Pred. No. 1
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                                                                                                                 Higashi
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                                                                              EMBL;
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Tzung K.W., Ishimura-Oka K., Kihara
"Structure of the mouse cholesterol
Genomics 21:244-247(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUL-1999 (Rel. 38, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
Cytochrome P450 7A1 (Cholesterol 7-alpha-monooxygenase) (CYPVII)
(EC 1.14.13.17) (Cholesterol 7-alpha-hydroxylase).
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Q64505;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOUSE
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                     EMBL; L23754; AAA68867.1; MGD; MGI:106091; Cyp7a1. InterPro; IPR001128; Cytoc Pfam; PF00067; P450; 1.
                                                                                                                                                                                                                                                                                            between
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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Oxidoreductase; Monooxygenase; Electron transport; Membrane; Microsome; Endoplasmic reticulum; Cholesterol metabolism; NAI BINDING 441 441 HEME (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00067; p450; PROSITE; PS00086; CY
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                                                                                                                                                       send
                                                                                                                                                                                                                                                                                                                                                             CATALYTIC ACTIVITY: Cholesterol + NADP hydroxycholesterol + NADP(+) + H(2)0. PATHWAY: FIRST AND RATE-LIMITING STEP CHOLESTEROL TO BILE ACIDS.
SUBCELLULAR LOCATION: Membrane-bound. SIMILARITY: BELONGS TO THE CYTOCHROME
                                                                                                                                                                                                                                                            European Bioinformatics Institute.
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10; Conserv
                                                                                                                                                     non-profit institutions as long and this statement is not removed. requires a license agreement (See lan email to license@isb-sib.ch).
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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7 alpha-hydroxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         503
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                                                                                                                                                                                                                                                                                                                                                                   Endoplasmic reticulum P450 FAMILY.
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; Murinae; Mus
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                                                                                                                                                                                                                                                            restrictions
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RESULT 8
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Matches 10
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P18125; I
                          STRAIN-Sprague-Dawley; MEDLINE-94292507; PubMed-8021257;
                                                                                                                                                                                 Noshiro M., Nishimoto M., Okuda K.;
"Rat liver cholesterol 7 alpha hydroxylase.
regulation for circadian rhythm.";
J. Biol. Chem. 265:10036-10041(1990).
                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-90243699; PubMed-2335522; Jelinek D.F., Andersson S., Slaughter C.A., Russell D.W.; Jelinek D.F., Andersson S., Slaughter C.A., Russell D.W.; "Cloning and regulation of cholesterol 7 alpha-hydroxylase, limiting enzyme in bile acid biosynthesis."; J., Biol. Chem. 265:8190-8197(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li Y.C., Wang D.P., Chiang J.Y.L.; "Regulation of cholesterol 7 alpha-hydroxylase in the liver. Clonin sequencing, and regulation of cholesterol 7 alpha-hydroxylase mRNA. J. Biol. Chem. 265:12012-12019(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chor
Mammalia; Eutheria; Rode
NCBI_TaxID=10116;
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01-NOV-1990 (Rel. 16, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Cytochrome P450 7A1 (Cholesterol 7-alpha-monooxygenase)
                                                                                  Nishimoto M., Gotoh O., Okuda K., Noshiro "Structural analysis of the gene encoding hydroxylase, the key enzyme for bile acid J. Biol. Chem. 266:6467-6471(1991).
                                                                                                                                                                                                                                                                                                 Noshiro M., Nishimoto M., Morohashi K., Okuda K.; "Molecular cloning of cDNA for cholesterol 7 alpha-hydroxylase rat liver microsomes. Nucleotide sequence and expression."; FEBS Lett. 257:97-100(1989).
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE-90033362;
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                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE=91177904; PubMed=2007596;
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Oxidoreductase; Monooxygenase; Electr
                                                        SEQUENCE
                                                                                                                                                                                                                                            MEDLINE-90277612;
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Identification
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                                                      OF 1-325
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              Stroup
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                                                      FROM N.A.
                                                                                                                                                                                                                                            PubMed=1693613;
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Rodentia;
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66.78;
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Sciurognathi; Muridae;
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biosynthesis.";
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Murinae; Rat
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RESULT 9
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CP7A_C
AC P46634
DT 01-NOV
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P46634;
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01-NOV-1995
30-MAY-2000
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MEDLING-91084435; PubMed-2261433;
Jelinek D.F., Russell D.W.;
"Structure of the rat gene encoding cholesterol Biochemistry 29:7781-7785(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
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Chiang J.Y., Yang T.P., Wang D.P.;
"Cloning and 5'-flanking sequence of a rat cholesterol 7 alpha:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 1-26 FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHOLESTEROL TO BILE ACIDS.
SUBCELLULAR LOCATION: Membrane-bound. Endoplasmic
TISSUE SPECIFICITY: LIVER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; U01962; AAA21144.2;
; X17595; CAB57878.1;
; Z14108; CAA78481.1;
A35376; A35376.
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J05430;
J05460;
M59184;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS00086; CYTOCHROME_P450; 1.
                                                                                                                                                                                                             DFTLHLEDGSYNIRK 383
                                                                                                                                                                                                                                                      DETNHLEDTRRNINK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IPR001128; Cytochrome_P450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                503 AA;
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(Rel.
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AAAA1042.1; JOINED.
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AAAA1042.1; JOINED.
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269:17502-17507(1994).
                                                                                             STANDARD;
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371 7
; 56882 MW;
32, Created)32, Last sequence update)39, Last annotation updat
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T -> S (IN REF. 5).
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Pred. No.
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CONVERSION OF
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CPTA_HUMAN
ID CPTA_HI
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GN CYP7A1
GN CYP7A1
OS HOMO S.
OC EUKARTY
OC Mammal
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cytochrome P450 7A1 (Cholesterol 7-alpha-monooxygenase) (EC 1.14.13.17) (Cholesterol 7-alpha-hydroxylase) CYP7A1 OR CYP7.
                                                                                                                                                                                                                                             Homo sapiens (Human).
Homo sapiens (Human).
Thereas (Hordata; Metazoa; Chordata; Metazoa; Primates;
                                                                                                                                                                                                                                                                                                                                   P22680;
P12680;
P1-AUG-1991 (Rel. 19, Created)
P1-JUN-1994 (Rel. 29, Last sequence update)
P1-JUN-1994 (Rel. 39, Last annotation update)
P1-JUN-1994 (Rel. 39, Last annotation update)
P1-JUN-1994 (Rel. 39, Last annotation update)
P1-JUN-1994 (Rel. 39, Last annotation update)
P1-JUN-1994 (Rel. 39, Last annotation update)
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P1
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InterPro; IPRO01128; Cytochrome_P450. Pfam; PF00067; p450; 1.
PROSITE; PS00086; CYTOCHROME_P450; 1.
Oxidoreductase; Monooxygenase; Electri Microsome; Endoplasmic reticulum; Cho BINDING 444 444 HEME (BY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cricetulus.
NCBI_TaxID=10029;
                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE=93176797; PubMed=8439551;
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    MEDLINE=90346120;
                          SEQUENCE FROM N.A.
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                                                                         Biochim.
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e encoding
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HEME (BY SIMILARITY).
447 MW; BD5E521D0C195257 CRC64;
                                                                         1172:147-150(1993)
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Pred. No. 4
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CONFLICT
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VARIANT
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-I - CATALYTIC ACTIVITY: Cholesterol + NADPH + O(2) = 7-alpha-hydroxycholesterol + NADPH + O(2) - 7-alpha-hydroxycholesterol + NADPH + H(2)O.

-I - PATHWAY: FIRST AND RATE-LIMITING STEP IN THE CONVERSION OF CHOLESTEROL TO BILE ACIDS.

-I - SUBCELLULAR LOCATION: Membrane-bound. Endoplasmic reticulum is SIMILARITY: BELONGS TO THE CYTOCHROME P450 FAMILY.
TISSUE-Mammary gland;
MEDLINE-94120413; PubMed-8290962;
Zou Z., Anisowicz A., Hendrix M.J
Rafidi K., Seftor E., Sager R.;
"Maspin, a serpin with tumor-supp
                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                    Maspin precursor
SERPINB5 OR PI5.
                                                                                                                                                            01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation updat Maspin precursor (Protease inhibitor 5).
                                                                                                                                                                                                                     MASP_HUMAN
P36952;
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EMBL; M93133; AAA58435.1;
PIR; JH0659; JH0659.
PIR; S29818; S29818.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oxidoreductase;
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MEDLINE-92304280; PubMed=1610352;
                                                                    SEQUENCE FROM N.A.
                                                                                               NCBI_TaxID=9606;
                                                                                                                                       Homo sapiens
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"Molecular cloning and sequence analysis of cDNA encoding human cholesterol 7 alpha-hydroxylase.";
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10; Conser
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tumor-suppressing
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                          M.J.C., Thor A.,
                                                                                                        Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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D -> N (IN REF. 2).
D -> S (IN REF. 2).
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um; Cholesterol metabolism; NADP;
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activity in
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Best Local
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ACT_SITE
CARBOHYD
CARBOHYD
                                                                                                                                     01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence upda
15-JUN-2002 (Rel. 41, Last annotation up
Maspin precursor (Protease inhibitor 5).
SERPIRBS OR PIS OR SPIF OR SPIF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "The tumor suppressor maspin does not undergo the stressed to relaxed transition or inhibit trypsin-like serine proteases. Evidence that maspin is not a protease inhibitory serpin.";

J. Biol. Chem. 270:15832-15837(1995).

-i- FUNCTION: TUMOR SUPPRESSOR. IT BLOCKS THE GROWTH, INVASION, AND METASTATIC PROPERTIES OF MAMMARY TUMORS. AS IT DOES NOT UNDERGO THE S (STRESSED) TO R (RELAXED) CONFORMATIONAL TRANSITION CHARACTERISTIC OF ACTIVE SERPINS, IT EXHIBITS NO SERINE PROTEASE INHIBITORY ACTIVITY.

-i- SUBCELLULAR LOCATION: Extracellular.
-i- SUBCELLULAR LOCATION: Extracellular.
-i- SUBCELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION: EXTRACELLULAR LOCATION
SEQUENCE FROM N.A. MEDLINE=97206139; PubMed=9132279;
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P70124;
                                                                                Eukaryota; Metazoa; Mammalia; Eutheria;
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SIGNAL 1
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                                                           NCBI_TaxID=10090;
                                                                                                                         Mus musculus (Mouse)
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InterPro; IPR000215; S
Pfam; PF00079; serpin;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  epithelial cells.";
Science 263:526-529(1994).
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SERPIN; 1.
                                                                                'Chordata;
Rodentia;
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01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                  MASP_RAT
-P70564;
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PROSITE; PS00284; SERPIN; 1.
Whekita Y., Hilpakka R.A., Liao S.; 
*Rat and human maspins: structures, and mutation in prostate cancer cell Cancer Lett. 113:87-93(1997).
                                                                                                                                                                          Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10116;
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                                                                                   STRAIN-Sprague-Dawley; TISSUE-Vac
MEDLINE-97218145; PubMed-9065806;
                                                                                                                                                                                                   Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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FUNCTION: TUMOR SUPPRESSOR. IT BLOCKS THE GROWTH, INVASION, AND
METASTATIC PROPERTIES OF MAMMARY TUMORS. AS IT DOES NOT UNDERGO
THE S (STRESSED) TO R (RELAXED) CONFORMATIONAL TRANSITION
CHARACTERISTIC OF ACTIVE SERPINS, IT EXHIBITS NO SERINE PROTEASE
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g of a human tumor suppressor gene inhibits
motility.";
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REACTIVE BOND (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL).
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                         res, metastatic cells.";
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                                            suppressor activity
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MEDLINE=96013887; PubMed=758
Barnes R.C., Worrall D.M.;
"Identification of a novel h
expression of leupin.";
FEBS Lett. 373:61-65(1995).
[3]

human

serpin

gene;

cloning

sequencing

and

SEQUENCE FROM N.A.

PubMed=7589435;

duplication

Natl.

MEDLINE-95241462; PubMed-7724531; Schneider S.S., Schick C., Fish K.E., Treter S.D., Hui S.M., Silverman G.A.

Miller

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Pena

"A serine proteinase inhibitor locus

roteinase inhibitor locus at 18q21.3 contains a of the human squamous cell carcinoma antigen ge Acad. Sci. U.S.A. 92:3147-3151(1995).

antigen gene.";

SEQUENCE FROM N.A. NCBI\_TaxID=9606;

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RESULT 14
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AC P48594
DT 01-CT
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01-OCT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Squamous cell carcinoma antigen 2 (SCCA-2) (Leupin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U58857; AAB06043.1; -. HSSP; P05619; 1HLE. InterPro; IPR000240; Maspin. InterPro; IPR000215; Serpin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                           Squamous cell carc SERPINB4 OR SCCA2.
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SMART; SM00093;
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                                                                                                                                                                                                                                            Homo sapiens (Human).
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SUBCELLULAR LOCATION: Extracellular.
SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY
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Primates;
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Q60393;
  SEQUENCE FROM N.A STRAIN=113 / 30;
                                                                                                                Clostridium botulinum. Bacteria; Firmicutes;
                                                                                                                                                                                                         01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation updat
Botulinum neurotoxin type G precursor (EC 3
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"Molecular cloning of human squamous cell carcinoma antigen 1 gene and characterization of its promoter.";
Biochim. Biophys. Acta 1518:124-131(2001).
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Submitted (NOV
                                                                   NCBI_TaxID=1491;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE SPECIFICITY: SQUÂMOUS CELLS.
SIMILARITY: BELONGS TO THE SERPIN FAMILY. OV-SERPIN SUBFAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nitted (NOV-2001) to the EMBL/GenBank/DDBJ databases. FUNCTION: MAY ACT AS A PROTEASE INHIBITOR TO MODULATE THE HOST IMMUNE RESPONSE AGAINST TUMOR CELLS.
SUBCELLULAR LOCATION: Cytoplasmic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U19572; AAA92602.1;
U19574; AAA92602.1;
U19575; AAA92602.1;
U19575; AAA97553.1;
U19575; CAA61420.1;
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U19571; AAA92602.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Serine protease inhibitor.
                                                                                                                                                                                                                                                                                                                                                                                                                                          VESTDFANAPEESRKKIN 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERVDETNHLEDTRRNIN 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PS00284; SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              390 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SERPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=11267667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44854 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46.0%;
                                                                                                                Clostridia; Clostridiales; Clostridiaceae
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Pred. No. 5
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04E213CD892587D5 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                            1296
                                                                                                                                                                                                         update)
(EC 3.4
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5.2;
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"Nucleotide sequence of the gene coding for Clostridium botulinum (Clostridium azgentinense) type G neurotoxin: genealogical comparison with other clostridial neurotoxins.";

Biochin. Biophys. Acta 1216:487-491(1993).

11 EUNCTION: BOTULINUS TOXIN ACTS BY INHIBITING NEUROTRANSMITTER RELEASE IT BINDS TO PERIPHERAL NEURONAL SYNAPSES, IS INTERNALIZED AND NOVES BY RETROGRADE TRANSPORT UP THE AXON INTO THE SPINAL CORD WHERE IT CAN MOVE BETWEEN POSTSYNAPTIC AND PRESYNAPTIC NEURONS. IT INHIBITS NEUROTRANSMITTER RELEASE BY ACTING AS A ZINC
                                                                                                                                                                                                                                                                            Prodom; PD001963; Bontoxilysin; 1. PROSITE; PS00142; ZINC_PROTEASE; 1
                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X74162; CAA52275.1; HSSP; P10845; 3BTA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -i- SUBCELLULAR LOCATION: Secreted (By similarity).

-i- MISCELLANEOUS: THERE ARE SEVEN ANTIGENICALLY DI
BOTULLINUM NEUROTOXIN: TYPES A, B, C1, D, E, F,

-i- SIMILARITY: BELONGS TO PEPTIDASE FAMILY M27.
                                                                                                                                                                                                                                                                                                              PRINTS;
                                                                                                                                                                                                                                                                                                                                               InterPro; IPR000395;
InterPro; IPR000130;
                                                                                                                                                                               ACT_SITE
                                                                                                                                                                                                                                                Neurotoxin;
                                                                                                                                                                                                                                                                                                                                                                                MEROPS; M27.002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=94092745; PubMed=8268233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuroexocytosis apparatus, synaptobrevins, SNAP25 or syntaxin. No detected action on small molecule substrates. SUBUNIT: DISULFIDE-LINKED HETERODIMER OF A LIGHT CHAIN (L) AND A HEAVY CHAIN (H). THE LIGHT CHAIN HAS THE PHARMACOLOGICAL ACTIVITY, WHILE THE N-AND C-TERMINAL OF THE HEAVY CHAIN MEDIATE CHANNEL FORMATION AND TOXIN BINDING, RESPECTIVELY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATALYTIC ACTIVITY: Limited hydrolysis of proteins of the neuroexocytosis apparatus, synaptobrevins, SNAP25 or synti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ENDOPEPTIDASE
554
                                                                                                                                                                                                                                                                                                                            Pro; IPR000130; Zn_MTpeptdse.
PF01742; Peptidase_M27; 1.
                                1 VERVDFTNHLEDTRRNINK: 19
                                                               similarity
9; Conserv
                                                                                                                                                                                                                                                                                                                  PR00760;
IENLOLTNSLNDALRNNNK
                                                                                                                                                                                                                                                                Hydrolase;
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                                                                                                                               AA;
                                                                                                                                                                                                                                                                                                                BONTOXILYSIN.
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441
1296
229
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233
449
                                                                                46.08;
47.48;
                                                                                                                                                                                                                                                                                                                                                               Bontoxilysin
                                                                                                                                 149013 MW;
                                                                                                                                                                                                                                                Metalloprotease; Zi
                                                                               .48;
                                                                                                                                                              BOTULINUM NEUROTOXIN G
BOTULINUM NEUROTOXIN G
ZINC (CATALYTIC) (BY S
BY SIMILARITY.
ZINC (CATALYTIC) (BY S
                                                               ?
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 572
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INTERCHAIN (PROBABLE).
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                                                                                                                                 DC8E47E15F665C31
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                                                                                                                                                                                                                                                              Zinc.
                                                                                                  DВ
                                                                                                ŗ
                                                                 8
                                                                                                Length 1296
                                                                                                                                                                                             N G, LIGHT-CHAIN.
N G, HEAVY-CHAIN.
SY SIMILARITY).
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                                                                                                                                 CRC64;
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